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Weed Control and Revegetation Status Report for Fiscal Year 2005 and Schedule for Fiscal Years 2006 and 2007

February 2006

Idaho Cleanup Project

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Idaho Cleanup Project
Idaho Falls, Idaho 83415

Prepared for the
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ABSTRACT

This report identifies and provides the status of weed control and revegetation activities performed at the Idaho National Laboratory by the Long-Term Stewardship Program of the Idaho Cleanup Project during Fiscal Year 2005. This report also establishes minimum weed control requirements, establishes procedures for recording and tracking weed control, and identifies efforts to standardize revegetation equipment, seed mixes, and weed control and reseeding schedules. It is recommended that the sites identified in this report be evaluated every year until the noxious and invasive weeds are controlled and the native vegetation is established to 70% of the surrounding vegetation, which is the former Storm Water Pollution Prevention Plan goal and is currently adopted as a best-management practice. Because of many factors, including the current soil conditions and the precipitation received at a particular site after demolition and remediation activities, the revegetation process might take less than 3 years at some sites but could take more than 10 years—and might not occur at all without intervention—at other sites.

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TABLES

ACRONYMS

ANL-W	Argonne National Laboratory-West (now known as Materials and Fuels Complex [MFC])
ARA	Auxiliary Reactor Area
ARVFS	Army Reentry Vehicle Facility Site
BEA	Battelle Energy Alliance, LLC
BORAX	Boiling Water Reactor Experiment
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFA	Central Facilities Area
CWI	CH2M-WG Idaho, LLC
D&D	decontamination and decommissioning
EBR	Experimental Breeder Reactor
EPA	U.S. Environmental Protection Agency
FY	fiscal year
ICDF	Idaho CERCLA Disposal Facility
ICP	Idaho Cleanup Project
IDAPA	Idaho Administrative Procedures Act
IET	Initial Engine Test
INEEL	Idaho National Engineering and Environmental Laboratory
INL	Idaho National Laboratory
INTEC	Idaho Nuclear Technology and Engineering Center
LTS	Long-Term Stewardship
MCP	management control procedure
NA	not applicable
NPTF	New Pump and Treat Facility
OU	operable unit
PBF	Power Burst Facility

RCRA	Resource Conservation and Recovery Act
RTC	Reactor Technology Complex
RWMC	Radioactive Waste Management Complex
SPERT	Special Power Excursion Reactor Test
SSER	Sagebrush-Steppe Ecological Reserve
SWPPP	Storm Water Pollution Prevention Plan
TAN	Test Area North
TBD	to be determined
TRA	Test Reactor Area
TSF	Technical Support Facility
USC	*United States Code*
WAG	waste area group
WRRTF	Water Reactor Research Test Facility
ZPPR	Zero Power Production Reactor

Weed Control and Revegetation Status Report for Fiscal Year 2005 and Schedule for Fiscal Years 2006 and 2007

1. INTRODUCTION

This report identifies and provides the status of weed control and revegetation activities performed at Idaho National Laboratory (INL) by the Long-Term Stewardship (LTS) Program of the Idaho Cleanup Project (ICP) during Fiscal Year (FY) 2005. In addition, this report establishes minimum weed control requirements, establishes procedures for recording and tracking weed control, and identifies efforts to standardize revegetation equipment, seed mixes, and weed control and reseeding schedules. Implementation of routine and standardized efforts at these sites will improve the quantity and health of native vegetation—weather permitting—as well as the cost of future weed control, erosion control, and revegetation efforts to fully restore these former Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (42 USC § 9601 et seq.) and Resource Conservation and Recovery Act (RCRA) (42 USC § 6901 et seq.) sites.

2. BACKGROUND

During the operational history of INL, numerous revegetation sites have been created as a result of former LTS sites' activities. During these activities, the contaminated surface and subsurface soil was removed, and the clean soil that replaced the contaminated soil at many sites was either sterile or otherwise unsuitable for plant growth (e.g., too much gravel, too many rocks, and/or littered with debris). Additional site information can be found in the *Weed Control and Revegetation Status Report for Fiscal Years 2001 through 2004 and Schedule for Fiscal Years 2005 and 2006* (INEEL 2005).

During 2005, 42 sites remained in the LTS organization at the INL for final restoration of the native vegetation. Of these 42 sites, two are under facility management purview and are no longer LTS sites; six are considered successfully revegetated; and 34 remain to restore. Of these remaining 34 LTS revegetation sites, 13 are projected to be successfully revegetated within 5 years; and, 21 sites may require over 5 years to be successfully revegetated, which includes five sites that were inaccessible during Spring 2005. Of the 13 sites projected to be restored within 5 years: three sites were reseeded in 2001 and two of these are planned for spot reseeding during Fall 2006 or 2007; one site was reseeded in 2003; six sites were reseeded during Fall 2005; and, the remaining three sites had unknown seeding dates. Of the 21 sites projected to be restored in more than 5 years: five sites were reseeded during Fall 2004 and were inaccessible during Spring 2005 and 16 sites are scheduled to be reseeded during Fall 2006 or 2007. Of the 16 sites: six are part of the Sagebrush-Steppe Ecological Reserve (SSER) and require special revegetation techniques; nine were reseeded between 2 and 5 years ago (seven sites in 2001 [with two of those seeded again in 2002] and two sites seeded in 2003) but have produced neither any vegetation nor significant vegetation; and no seeding information is known about the remaining site, which also has not produced vegetation.

During 2005, soil samples were collected at four of the most challenging revegetation sites. The sample data will allow development of a more successful restoration plan for these sites.

In addition to revegetation, a total of 48 LTS sites, including the 34 revegetation sites, are scheduled for annual, biannual, or triannual weed control monitoring by LTS personnel. The status and schedule of the 50 sites monitored during 2005 are shown in Table 1. In the past, a routine weed control and revegetation schedule was not established to monitor or control the restoration of former

environmental sites. Native vegetation varies from the northern to the southern parts of INL because of such factors as climate, organic matter, relief, parent material, and time needed for the seedlings to become established. Information from a local ecologist suggests that total recovery of native vegetation might occur within 3 years for grasses and forbs to more than 10 years for sagebrush. Without an established plan, vegetation and soil challenges (e.g., continual noxious and/or invasive weeds, lack of topsoil, and wind and/or water erosion) will continue to have a negative impact on these sites.

Past weed control and revegetation practices at INL have generated inconsistencies in equipment usage, seed mixes, seed plantings, amendments, and weed control and seeding schedules. Because of the variety of herbicides required for different weed species, as well as for land and riparian applications, additional costs have been incurred. Currently, annual spring weed control and vegetation inspections are conducted in order to assess the growth rate of noxious and invasive weeds and the growth rate of the desired and recommended native vegetation.

The sites identified in this report are typically evaluated every year until the noxious and invasive weeds are controlled and the native vegetation is established to 70% of the surrounding vegetation, which is the former Storm Water Pollution Prevention Plan (SWPPP) goal. The SWPPP goal was required under the *National Pollutant Discharge Elimination System General Permit for Storm Water Discharges from Large and Small Construction Activities* (EPA 2003). This SWPPP goal has been adopted as a best-management practice at Miscellaneous Sites Cleanup Project weed control and revegetation sites. The adoption of this best-management practice supports compliance with the Idaho Administrative Code "Noxious Weeds Rules" (IDAPA 02.06.22), which requires treatment and management to prevent dissemination of noxious weeds. In addition, Executive Order 13112, "Invasive Species," encourages control of invasive species to minimize the economic, ecological, and human health impact that these species cause.

3. ANNUAL SPRING INSPECTIONS

Two annual spring inspections are required at the LTS sites on the INL: an early spring weed inspection and a late-spring vegetation inspection. Management Control Procedure (MCP) -2725, "Field Work," should be followed for any inspection. The revegetation specialist accompanied by a state-certified herbicide applicator should conduct the early spring weed inspection. The blank Vegetation Assessment Form included in Appendix A details the inspection items. The inspection includes the following activities:

1. Record in the field logbook the information gathered during the inspection.

2. Verify the site name, location, size, and dimensions, and record the assessment date (see Appendix A, items A, B, C, and J).

3. Review previous vegetation assessment notes (see Appendix A, items D through O).

4. Identify the various weed species (i.e., noxious and/or invasive) and the stages of growth.

5. Recommend the appropriate time to control the specific weed species.

6. Submit a map of the site, with the weed species identified, to the organization responsible for spraying the weeds (e.g., the Battelle Energy Alliance, LLC [BEA] Maintenance Operations Department, the BEA Maintenance Coordination Department, Central Facilities Area [CFA] Planning Department, CH2M-WG Idaho, LLC [CWI] Operations and Maintenance Department, or a subcontractor).

7. Schedule a time when the BEA Maintenance Operations applicator or the subcontractor can spray the weeds with herbicide. The site should be sprayed at least 2 weeks before the vegetation assessment to allow adequate time for weed senescence and herbicide degradation.

8. Request the applicator report when the site has been sprayed with herbicide.

9. Copy the applicable information from the field logbook onto the individual site Vegetation Assessment Forms (see Appendix A, items D, E, F, G, and H).

The revegetation specialist accompanied by an ecologist should conduct the late-spring vegetation inspection; they will complete the following activities:

1. Record in the field logbook the information gathered during the inspection.

2. Verify the name, location, size, and dimensions of the site, and record the assessment date (see Appendix A, items A, B, C, and J).

3. Review previous vegetation assessment notes (see Appendix A, items D through O).

4. Visually examine and record the condition of the site (see Appendix A, items D and E):

    a. Evaluate the overall vegetative condition (i.e., compared to the surrounding undisturbed areas, has the site reached the 70% of natural vegetative cover in accordance with the former SWPPP goal, which has been adopted as a best-management practice at LTS revegetation sites?).

    b. Estimate the percentage of native and/or recommended species (i.e., native vegetation and/or recommended seed mix).

    c. Estimate the percentage of noxious species (e.g., Canada thistle, rush skeletonweed, and field bindweed).

    d. Estimate the percentage of invasive species (e.g., cheatgrass, Russian thistle, kochia, and halogeton).

5. Photograph the site, noting the orientation and direction that the picture was taken.

6. Visually examine and record areas adjacent to the site and/or at the perimeter of the site (see Appendix A, items D and E). If the site is adjacent to buildings, no native vegetation exists. If vegetation is present, then do the following:

    a. Evaluate the overall condition of the vegetation to determine what is 70% of natural vegetative cover for the actual site.

    b. If possible, estimate the percentage of recommended species (i.e., native vegetation and/or plants resulting from the recommended seed mix).

    c. If possible, estimate the percentage of noxious species present (e.g., Canada thistle, rush skeletonweed, and field bindweed).

    d. If possible, estimate the percentage of invasive species (e.g., cheatgrass, Russian thistle, kochia, and halogeton).

7. Make recommendations (see Appendix A, item E) on the following:

    a. Future revegetation (i.e., seeding or reseeding), including seed mix, rate, and planting season.

    b. Weed control methods.

    c. Erosion control (e.g., compacted gravel pads at well sites and signs or barriers to prevent vehicle traffic).

8. Record all of the information from the field logbook onto the individual site Vegetation Assessment Forms (see Appendix A, items D through H).

The annual spring weed inspection and the herbicide spraying should occur before the annual vegetation inspection. In addition, a fall weed inspection and the herbicide spraying should occur at the end of summer, when necessary, and depending on the herbicide, at least 2 weeks before any fall reseeding.

4. DOCUMENTATION

As noted in Section 3, the activities performed during the annual spring inspections initially will be recorded in a logbook and on hardcopies of the site maps. Upon completion of weed inspections and control measures, as well as vegetation inspections and any erosion control and revegetation activities, the logbook and revised site map information will be compiled in a revised annual Miscellaneous Sites Cleanup Project Weed Control and Revegetation Status Report and Schedule (for specific years), typically each fall. A copy of the report will be kept in the project files. Appendix B of this report contains the FY 2005 Vegetation Assessment Forms for LTS and former LTS sites. Appendix C contains the weed control and revegetation site maps for the 2005 LTS sites.

5. OTHER ACTIVITIES

In addition to the spring inspections, a fall weed inspection should be conducted to evaluate any noxious weed regrowth. The steps outlined in Section 3 for the spring weed inspection also should be used for the fall inspections.

Other activities recommended in the specific site Vegetation Assessment Form (see Appendix B) will be completed. Reseeding of sites should occur in the fall, usually after the beginning of the new fiscal year and preferably before the first snowfall. Reseeding should be scheduled with the BEA Operations and Maintenance Department, CWI Operations and Maintenance Department, or an appropriate subcontractor. The required type and amount of native seed mix, fertilizer, and amendments will be purchased and will be used in accordance with the specific Site Assessment Form (see Appendix B). A trained equipment operator or subcontractor using the appropriate equipment (e.g., Truax drill or Planet Junior seeder) or working manually, as appropriate, should be requested to perform the seeding. The revegetation specialist and the ecologist or equivalent should monitor the reseeding task.

As necessary, a subcontractor specializing in revegetation will be secured via the LTS subcontract process to collect soil samples for nutrient analysis at the specific sites. The samples will be sent to an agricultural laboratory for analysis. Laboratory results, along with the subcontractor's recommendations based on these results, will be forwarded to the LTS revegetation specialist, typically within a few weeks. This information will be included in the specific site Vegetation Assessment Form (item O, "Additional Information").

6. SCHEDULE

Table 1 summarizes the sites and the activities completed in FY 2005 as well as the activities proposed for FYs 2006 and 2007 to ensure that the site restoration meets LTS goals. At the beginning of each fiscal year, the list should be reevaluated and modified, as necessary, to account for changes in site prioritization. The schedule is designed to be sufficiently flexible to accommodate changes that might result from removal or addition of sites.

7. CONCLUSIONS AND RECOMMENDATIONS

The history of many of the former CERCLA and RCRA sites at the INL reveals a tendency toward site invasion by noxious and/or invasive weeds. During the weed and vegetation inspections, weed invasions should be evaluated, and appropriate eradication measures should be recommended. Any erosion issues also should be determined. Via the steps listed in Section 3, it is recommended that initially the sites be inspected for weeds biannually and then inspected annually; the sites also should be inspected for native vegetation establishment annually for the first 5 years, and then biennially as native vegetation establishment improves.

Annually, the vegetation assessment forms and site maps should be revised in the Weed Control and Revegetation Status Report and Schedule for the appropriate fiscal year. If followed without deviation, the recommendations resulting from the vegetation assessments should ensure that the noxious and invasive weeds are controlled and the native vegetation recovers and thrives. Total recovery of native vegetation, therefore, should occur between 3 and 10 years at these formerly contaminated sites. Finally, weed and/or vegetation inspections should be cancelled when the noxious and invasive weeds are controlled and the native vegetation is fully established at 70% of the surrounding vegetation, which is the former SWPPP goal and is currently adopted as a best-management practice at Miscellaneous Sites Cleanup Project revegetation sites.

Table 1. Revegetation, weed control, and other activities completed at Long-Term Stewardship sites during Fiscal Year 2005 and activities planned or recommended for Fiscal Years 2006 and 2007.

Site Name (Site Alias)	Site Location	Last Vegetation Assessment (Year)	Last Weed Assessment and/or Herbicide Application (Season; Year; Herbicide)	Last Revegetation (Year)	Next Weed Assessment and/or Herbicide Application (Season and Year)	Next Revegetation (Year)	Comments and Recommendations (see Appendix B for details)
TANT-MON-A-027 (TAN outside Well 27)	West of Lincoln Blvd. and north of Nile Ave.	2005	Spring and Fall 2005; Round Up	Unknown	Spring 2006	NA	Revegetation is complete. Cancel the annual vegetation assessment. Continue to spot spray invasive weeds. Determine the weed control schedule after the Fall 2005 and Spring 2006 weed assessments.
TANT-MON-A-006 (TAN outside Well 32)	East of TAN-27 and north of Nile Ave.	2005	Spring and Fall 2005; Round Up	Unknown	Spring 2006	NA	Continue annual vegetation monitoring for 2–5 years. Continue to spot spray invasive weeds. Determine the weed control schedule after the June 2006 vegetation assessment.
TANT-MON-A-008 (TAN outside Well 34)	West of Lincoln Blvd. and north of the TAN-687 Fire Station	2005	Spring and Fall 2005; Round Up	Unknown	Spring 2006	NA	Continue annual vegetation monitoring for 2–5 years. Continue to spot spray invasive weeds. Determine the weed control schedule after the June 2006 vegetation assessment.
TANT-MON-A-009 (TAN outside Well 35)	West of Lincoln Blvd. and northwest of TAN-34	2005	Spring and Fall 2005; Round Up	Unknown	Spring 2006	NA	Continue annual vegetation monitoring for 2–5 years. Continue to spot spray invasive weeds. Determine the weed control schedule after the June 2006 vegetation assessment.
TANT-MON-A-010 (TAN outside Well 36)	North of Nile Ave. and northeast of TAN-27	2004	Spring 2005; none	Unknown	Spring 2006	NA	Revegetation is complete. Cancel the annual vegetation assessment. Spray sterilant on the gravel road to the site, if necessary.
TANT-MON-A-019 (TAN outside Well 45)	North of Nile Ave. and northwest of TAN-36	2004	Spring 2005; none	Unknown	Spring 2006	NA	Revegetation is complete. Cancel the annual vegetation assessment. Spray sterilant on the gravel road to the site, if necessary.

Table 1. (continued).

Site Name (Site Alias)	Site Location	Last Vegetation Assessment (Year)	Last Weed Assessment and/or Herbicide Application (Season; Year; Herbicide)	Last Revegetation (Year)	Next Weed Assessment and/or Herbicide Application (Season and Year)	Next Revegetation (Year)	Comments and Recommendations (see Appendix B for details)
TANT-MON-A-020 (TAN outside Well 46)	North of Nile Ave. and west of TAN-36	2005	Spring 2005; none	Unknown	Spring 2006	NA	Revegetation is complete. Cancel the annual vegetation assessment. Spray sterilant on the gravel road to the site, if necessary.
TANT-MON-A-047 (TAN outside Well 47)	Southwest of Lincoln Blvd. and Nile Ave. intersection	2005	Spring 2005; none	Unknown	Spring 2006	NA	Revegetation is complete. Cancel the annual vegetation assessment. Spray sterilant on the gravel road to the site, if necessary.
TANT-MON-A-048 (TAN outside Well 48)	South of Lincoln Blvd. and Taft Blvd. intersection	2005	Spring and Fall 2005; Round Up	2005	Spring 2006	TBD	Continue annual vegetation monitoring for >5 years. A gravel entry road and a compacted gravel pad were constructed during Summer 2005. Reseeded the perimeter of the site. Spray sterilant on the gravel road to the site, if necessary.
TANT-MON-A-051 (TAN outside Well 51)	Southeast of the TSF, south of Hwy 33, and west of the north/south gravel road to the WRRTF	2005	Spring and Fall 2005; Round Up	Unknown	Spring 2006	TBD: possibly 2006 or 2007	Since this site is part of the SSER, only seeds or transplants collected from this area are permitted. Although no action (with possible removal from revegetation and weed control assessments) was recommended after the assessment, construction of the gravel pad on the north side of the well during Summer 2005 caused damage. The current recommendation: transplant seedlings or reseed the perimeter of the site; spray sterilant on the gravel road to the site, if necessary; selectively spray for halogeton, if possible; and continue annual vegetation monitoring for >5 years. Determine the weed control schedule after the June 2006 vegetation assessment.

Table 1. (continued).

Site Name (Site Alias)	Site Location	Last Vegetation Assessment (Year)	Last Weed Assessment and/or Herbicide Application (Season; Year; Herbicide)	Last Revegetation (Year)	Next Weed Assessment and/or Herbicide Application (Season and Year)	Next Revegetation (Year)	Comments and Recommendations (see Appendix B for details)
TANT-MON-A-052 (TAN outside Well 52)	Southeast of TAN-51 and west of the north/south gravel road to the WRRTF	2005	Spring and Fall 2005; Round Up	Unknown	Spring 2006	TBD: possibly 2006 or 2007	Since this site is part of the SSER, only seeds or transplants collected from this area are permitted. The current recommendation: transplant seedlings or reseed the perimeter of the site; selectively spray for halogeton, if possible; and continue annual vegetation monitoring for >5 years. Determine the weed control schedule after the June 2006 vegetation assessment.
TANT-INJ-A-053A (TAN outside Well 53A)	East of TSF and southeast of TAN-601	2005	Spring 2005; NA	NA	TBD	NA	Transfer to other management: same as the other NPTF wells. Remove from LTS management.
TANT-MON-A-054 (TAN outside Well 54)	West of TAN-51 and east of Lincoln Blvd.	2005	Spring and Fall 2005; Round Up	2001	Spring 2006	TBD: possibly 2006 or 2007	Since this site is part of the SSER, only seeds or transplants collected from this area are permitted. Although no action (with possible removal from revegetation and weed control assessments) was recommended after the assessment, construction of the gravel pad during Summer 2005 caused damage. The current recommendation: transplant seedlings or reseed the perimeter of the site; spray sterilant on the gravel road to the site, if necessary; selectively spray for halogeton, if possible; and continue annual vegetation monitoring for >5 years. Determine the weed control schedule after the June 2006 vegetation assessment.

Table 1. (continued).

Site Name (Site Alias)	Site Location	Last Vegetation Assessment (Year)	Last Weed Assessment and/or Herbicide Application (Season; Year; Herbicide)	Last Revegetation (Year)	Next Weed Assessment and/or Herbicide Application (Season and Year)	Next Revegetation (Year)	Comments and Recommendations (see Appendix B for details)
TANT-MON-A-055 (TAN outside Well 55)	East of TAN-51 and south of Hwy 33	2005	Spring and Fall 2005; Round Up	2005	Spring 2006	TBD	A compacted gravel pad was constructed during Summer 2005. Selective spraying for halogeton should be performed if possible. Reseeded the perimeter of the site. Continue annual vegetation monitoring for >5 years. Determine the weed control schedule after the June 2006 vegetation assessment.
TANT-MON-A-056 (TAN outside Well 56)	Southeast of McKinley Blvd. and south of the WRRTF	2005	Spring and Fall 2005; Round Up	2001	Spring 2006	TBD: possibly 2006 or 2007	Since this site is part of the SSER, only seeds or transplants collected from this area are permitted. Tested the soil during Fall 2005 since the native vegetation was still minimal. Transplant seedlings or reseed manually or with a drill around recommended areas; may need to test soil and/or irrigate to establish plants. Spray sterilant on the gravel road to the site, if necessary. Continue annual vegetation monitoring for >5 years. Determine the weed control schedule after the June 2006 vegetation assessment.
TANT-MON-A-057 (TAN outside Well 57)	South of McKinley Blvd. and west of the WRRTF	2005	Spring and Fall 2005; Round Up	2001	Spring 2006	TBD: possibly 2006 or 2007	Since this site is part of the SSER, only seeds or transplants collected from this area are permitted. Transplant seedlings or reseed the entire site with Planet Junior/drill. Spray sterilant on the gravel road to the site, if necessary. Continue annual vegetation monitoring for >5 years. Determine the weed control schedule after the June 2006 vegetation assessment.

Table 1. (continued).

Site Name (Site Alias)	Site Location	Last Vegetation Assessment (Year)	Last Weed Assessment and/or Herbicide Application (Season; Year; Herbicide)	Last Revegetation (Year)	Next Weed Assessment and/or Herbicide Application (Season and Year)	Next Revegetation (Year)	Comments and Recommendations (see Appendix B for details)
TANT-MON-A-058 (TAN outside Well 58)	Southeast of TAN-52 and northeast of the WRRTF	2005	Spring and Fall 2005; Round Up	2001	Spring 2006	TBD: possibly 2006 or 2007	Since this site is part of the SSER, only seeds or transplants collected from this area are permitted. Transplant seedlings or reseed the entire site with Planet Junior/drill. Spray sterilant on the gravel road to the site, if necessary. Continue annual vegetation monitoring for >5 years. Determine the weed control schedule after the June 2006 vegetation assessment.
TSF-07 (TSF-07 pond)	Inside a radiological fence; west of the TSF and Nile Ave.	2004	Fall 2005; Rodeo	Unknown	Spring 2006	NA	Revegetation is complete. Cancel the annual vegetation assessment. Continue to monitor for noxious weeds (i.e., Canada thistle), and spray to control weeds twice per year as needed.
Initial Engine Test Facility	North of the TSF, inside fence	2005	Spring and Fall 2005; Redeem and Escort	2001	Spring 2006	2006 or 2007	Reseed bare areas with the Truax drill. Follow the recommendations from the Fall 2003 laboratory results, if appropriate. Continue annual vegetation monitoring for >5 years. Determine the weed control schedule after the June 2006 vegetation assessment.
ARVFS (formerly ARVFS-01 and ARVFS-02)	East of Lincoln Blvd. Mile Marker 11	2005	Spring and Fall 2005; Redeem and Escort	2005	Spring 2006	TBD	Reseeded the invasive weed and bare areas during Fall 2005. Selectively sprayed the invasive weeds (i.e., halogeton and Russian thistle monocultures). Follow the recommendations from the Fall 2003 laboratory results, if appropriate. Continue annual vegetation monitoring for 2–5 years. Determine the weed control schedule after the June 2006 vegetation assessment.

Table 1. (continued).

Site Name (Site Alias)	Site Location	Last Vegetation Assessment (Year)	Last Weed Assessment and/or Herbicide Application (Season; Year; Herbicide)	Last Revegetation (Year)	Next Weed Assessment and/or Herbicide Application (Season and Year)	Next Revegetation (Year)	Comments and Recommendations (see Appendix B for details)
Lincoln Blvd. Borrow Source site (for CFA-08) (Lincoln Blvd. Site)	West of Lincoln Blvd. Mile Marker 11	2005	Spring and Fall 2005; Redeem and Escort	2003	Spring 2006	TBD: possibly 2006 or 2007	Continue annual vegetation monitoring for >5 years. Spot spray to control invasive weeds. (i.e., halogeton and Russian thistle monocultures). Determine the reseeding and/or weed control schedule after the June 2006 vegetation assessment.
CFA Fire Station II Site (west side)	East of Lincoln Blvd. and south of Mile Marker 5	2005	Spring and Fall 2005; Curtail and Escort	2005	Spring 2006	TBD	Reseeded the bare areas during Fall 2005. Determine the status of the well on the north end of the site. Continue annual vegetation monitoring for 2–5 years. Control noxious weeds twice per year, as necessary. Determine the weed control schedule after the June 2006 vegetation assessment.
RTC (formerly TRA) North Storage Area (RTC OU 10-06 radiological soil contamination)	North of the RTC, outside the fence	2005	Spring and Fall 2005; Redeem and Escort	2001[a]	Spring 2006[b]	2006 or 2007	Continue annual vegetation monitoring for 2–5 years. Reseed bare areas with the Truax drill, if necessary. Monitor and spray the invasive weeds on the site and the noxious weeds (i.e., Canada thistle) north of the site. Determine the reseeding and weed control schedule after the June 2006 vegetation assessment.
TRA-13 OU 2-13 remedial action (RTC sewage leach pond cap)	East of the RTC, outside the fence	2005	Spring and Fall 2005; Redeem and Escort	2001[c]	Spring 2006	TBD	No action. Continue annual vegetation monitoring for 2–5 years. Monitor and spot spray to control the invasive and/or noxious weeds. Determine the reseeding and/or weed control schedule after the June 2006 vegetation assessment.

Table 1. (continued).

Site Name (Site Alias)	Site Location	Last Vegetation Assessment (Year)	Last Weed Assessment and/or Herbicide Application (Season; Year; Herbicide)	Last Revegetation (Year)	Next Weed Assessment and/or Herbicide Application (Season and Year)	Next Revegetation (Year)	Comments and Recommendations (see Appendix B for details)
CFA-08 Sewage Plant, septic tank, and drainfield (CFA Sewage Treatment Plant)	North of the CFA tank farm and loading rack	2005	Spring and Fall 2005; none	2002[d]	TBD	2006 or 2007	Tested the soil on the southeast side during Fall 2005. Follow recommendations from the laboratory results, as appropriate. Reseed area using the Truax drill. Irrigate if possible. Fencing on the north side might be required to eliminate vehicle traffic. Continue annual vegetation monitoring for >5 years. Determine the reseeding and/or weed control schedule after the June 2006 vegetation assessment.
CFA tank farm and loading rack	Northwest of the CFA bunker	2005	Spring and Fall 2005; none	2001	Spring 2006[e]	NA	Revegetation is complete. Cancel the annual vegetation assessment. Monitor and spray to control noxious weeds twice per year, as necessary.
CFA-639/678 bunker (CFA bunker)	Northeast of CFA on Quebec Ave.	2005	Spring and Fall 2005; none	2002[f]	Spring 2006	2006 or 2007	Tested the soil during Fall 2005. Follow recommendations from laboratory results, if appropriate. Reseed using the Truax drill. Irrigate, if necessary. Spot spray to control invasive and/or noxious weeds twice per year as necessary. Continue annual vegetation monitoring for >5 years. Determine the reseeding and/or weed control schedule after the June 2006 vegetation assessment.
Well CFA-MON-A-001 (CFA-MON-1)	South of CFA and southeast of the CFA-04 pond	2005	Spring and Fall 2005; Round Up	2005	Spring 2006	TBD	Reseeded bare areas both manually and using the Planet Junior, during Fall 2005. Re-compact gravel, if possible. Selectively spray for halogeton, if possible. Continue annual vegetation monitoring for 2–5 years. Determine the weed control schedule after the June 2006 vegetation assessment.

Table 1. (continued).

Site Name (Site Alias)	Site Location	Last Vegetation Assessment (Year)	Last Weed Assessment and/or Herbicide Application (Season; Year; Herbicide)	Last Revegetation (Year)	Next Weed Assessment and/or Herbicide Application (Season and Year)	Next Revegetation (Year)	Comments and Recommendations (see Appendix B for details)
Well CFA-MON-A-002 (CFA-MON-2)	East of CFA-MON-A-001	2005	Spring and Fall 2005; Round Up	2005	Spring 2006[g]	TBD	Reseeded bare areas both manually and using the Planet Junior during Fall 2005. Re-compact gravel, if possible. Selectively spray for halogeton, if possible. Continue annual vegetation monitoring for 2–5 years. Determine the weed control schedule after the June 2006 vegetation assessment.
Well CFA-MON-A-003 (CFA-MON-3)	East of CFA-MON-A-002	2005	Spring and Fall 2005; Round Up	2005	Spring 2006[h]	TBD	Reseeded bare areas both manually and using the Planet Junior during Fall 2005. Re-compact gravel, if possible. Selectively spray for halogeton, if possible. Continue annual vegetation monitoring for 2–5 years. Determine the weed control schedule after the June 2006 vegetation assessment.
CFA-04 Pond Remedial Investigation/Feasibility Study (CFA-04 pond) Remediation	South and west of CFA-674	2005	Fall 2005; Round Up	2003	Spring 2006	TBD	Spot spray to control weeds, as necessary. Continue annual vegetation monitoring for 2–5 years. Determine the weed control schedule after the June 2006 vegetation assessment.
Well PBF-MON-A-003 (PBF outside Well 3)	East of Jefferson Blvd. and south of Wilson Blvd.	2004	Spring and Fall 2005; Round Up	2001	Spring 2006	NA	Revegetation is complete. Cancel the annual vegetation assessment. Continue to monitor for noxious weeds (i.e., rush skeletonweed, and spot spray to control weeds twice per year, as needed.
Well PBF-MON-A-004 (PBF inside Well 4)	Inside the fence and south of the Waste Experimental Reduction Facility	2005	Spring and Fall 2005; Round Up	2005	Spring 2006	TBD	Reseeded bare areas both manually and using the Planet Junior during Fall 2005. Continue annual vegetation monitoring for 2–5 years; monitor for cheatgrass and spray to control, as necessary. Determine the weed control schedule after the June 2006 vegetation assessment.

Table 1. (continued).

Site Name (Site Alias)	Site Location	Last Vegetation Assessment (Year)	Last Weed Assessment and/or Herbicide Application (Season; Year; Herbicide)	Last Revegetation (Year)	Next Weed Assessment and/or Herbicide Application (Season and Year)	Next Revegetation (Year)	Comments and Recommendations (see Appendix B for details)
Well PBF-MON-A-005 (PBF inside Well 5)	Inside the fence and north of the SPERT No. 2	2005	Spring 2005; none	2001	NA	NA	Revegetation is complete. Cancel the annual vegetation assessment. No weed control is anticipated at this site.
ARA-21 Remediation Site/ARA-IV Seepage Pit	East of the intersection of Wilson and Fillmore Blvds.	2005	Spring 2005; none	2001	NA	NA	Revegetation is complete. Cancel the annual vegetation assessment. No weed control is anticipated at this site.
ARA-13 and entire ARA-III graveled area (ARA-III site)	East of Fillmore Blvd.	2005	Spring and Fall 2005; Curtail and Escort	2001[i]	Spring 2006	2006 or 2007	Tested the soil during Fall 2005. Follow recommendations from laboratory results, if appropriate. Reseed entire area using the Truax drill. Irrigate, if possible. Spot spray to control noxious and invasive weeds twice per year, as necessary. Continue annual vegetation monitoring for >5 years. Determine the reseeding and/or weed control schedule after the June 2006 vegetation assessment.
ARA-12 (ARA-III radiological site)	West of Fillmore Blvd.	None[i]	Fall 2005; Curtail and Escort	2004	Spring 2006	TBD	Spot spray to control noxious and invasive weeds twice per year, as necessary. Continue annual vegetation monitoring for >5 years. Determine the reseeding and/or weed control schedule after the June 2006 vegetation assessment.
ARA-08 (ARA-II north radiological site)	East of Fillmore Blvd. and north of the formerly fenced ARA-II	2002	Fall 2005; none	2004[i]	TBD: possibly Spring 2006	TBD	Site was not accessible during early Summer 2005. Spot spray to control noxious and invasive weeds twice per year, as necessary. Resume annual vegetation monitoring and continue for >5 years. Determine the reseeding and/or weed control schedule after the June 2006 vegetation assessment.

Table 1. (continued).

Site Name (Site Alias)	Site Location	Last Vegetation Assessment (Year)	Last Weed Assessment and/or Herbicide Application (Season; Year; Herbicide)	Last Revegetation (Year)	Next Weed Assessment and/or Herbicide Application (Season and Year)	Next Revegetation (Year)	Comments and Recommendations (see Appendix B for details)
ARA-07 (ARA-II south radiological site)	East of Fillmore Blvd. and south of the formerly fenced ARA-II	2002	Fall 2005; none	2004[i]	TBD: possibly Spring 2006	TBD	Site was not accessible during early Summer 2005. Spot spray to control noxious and invasive weeds twice per year, as necessary. Resume annual vegetation monitoring and continue for >5 years. Determine the reseeding and/or weed control schedule after the June 2006 vegetation assessment.
ARA-16/25 (ARA-I east radiological site)	East of Fillmore Blvd., south of ARA-07	2002	Fall 2005; none	2004[i]	TBD: possibly Spring 2006	TBD	Site was not accessible during early Summer 2005. Spot spray to control noxious and invasive weeds twice per year, as necessary. Resume annual vegetation monitoring and continue for >5 years. Determine the reseeding and/or weed control schedule after the June 2006 vegetation assessment.
ARA-02 (ARA-I south radiological site)	South of Fillmore Blvd. on the southwest side of ARA-16/25	2002	Fall 2005; None	2004[i]	TBD: possibly Spring 2006	TBD	Site was not accessible during early Summer 2005. Spot spray to control noxious and invasive weeds twice per year, as necessary. Resume annual vegetation monitoring and continue for >5 years. Determine the reseeding and/or weed control schedule after the June 2006 vegetation assessment.
Security Training Facility	Northeast of the main guard gate and north of Jefferson Blvd. on Arthur Blvd.	2005	Spring and Fall 2005; Curtail and Escort	2001	Spring 2006	2006 or 2007	Since no new growth was observed during the June 2005 vegetation assessment, follow the recommendations from the Fall 2003 laboratory results. Reseed using the Truax drill. Continue annual vegetation monitoring for >5 years. Monitor and spot spray to control noxious and invasive weeds twice per year, as needed. Determine the reseeding and/or weed control schedule after the June 2005 vegetation assessment.

Table 1. (continued).

Site Name (Site Alias)	Site Location	Last Vegetation Assessment (Year)	Last Weed Assessment and/or Herbicide Application (Season; Year; Herbicide)	Last Revegetation (Year)	Next Weed Assessment and/or Herbicide Application (Season and Year)	Next Revegetation (Year)	Comments and Recommendations (see Appendix B for details)
EBR-I/EBR-15 (OU 10-06 radioactive soil contamination)	South of Van Buren Blvd. and west of the EBR-I building following the fence south and east	2004	Spring and Fall 2005; Curtail and Escort	1999[j]	Spring 2006	NA	Revegetation is complete. Cancel the annual vegetation assessment. Continue to monitor for noxious weeds (i.e., Canada thistle and hoary cress) and spot spray to control weeds twice (or thrice for hoary cress) per year, as needed.
EBR-I/demolition of the ZPPR	South of Van Buren Blvd. and east of the EBR-I building	2004	Spring and Fall 2005; Curtail and Escort	1999[j]	Spring 2006	NA	Revegetation is complete. Cancel the annual vegetation assessment. Continue to monitor for noxious weeds (i.e., Canada thistle & hoary cress) and spot spray to control weeds twice (or thrice for hoary cress) per year, as needed.
EBR-04 (EBR-I inside fence)	South of Van Buren Blvd. and east of the EBR-I building and former ZPPR site, east to the fence	2004	Spring and Fall 2005; Curtail and Escort	2001[j]	Spring 2006	NA	Revegetation is complete. Cancel the annual vegetation assessment. Continue to monitor for noxious weeds (i.e., Canada thistle and hoary cress) and spot spray to control weeds twice (or thrice for hoary cress) per year, as needed.
EBR-03 (EBR-I outside fence)	South of Van Buren Blvd. and east of the perimeter road and fence	2005	Spring and Fall 2005; Curtail and Escort	2003	Spring 2006[k]	2006 or 2007	Tested the soil during Fall 2005. Follow the recommendations from the laboratory results, if appropriate. Reseed using the Truax. Irrigate, if possible. Continue to monitor for noxious weeds (i.e., Canada thistle and hoary cress) and invasive weeds (i.e., cheatgrass). Spot spray to control weeds twice (or thrice for hoary cress) per year, as needed. Continue annual vegetation monitoring for >5 years. Determine the reseeding and/or weed control schedule after the June 2006 vegetation assessment.

Table 1. (continued).

Site Name (Site Alias)	Site Location	Last Vegetation Assessment (Year)	Last Weed Assessment and/or Herbicide Application (Season; Year; Herbicide)	Last Revegetation (Year)	Next Weed Assessment and/or Herbicide Application (Season and Year)	Next Revegetation (Year)	Comments and Recommendations (see Appendix B for details)
EBR-I perimeter fence (EBR-I outside and east of the perimeter fence)	South of Van Buren Blvd. and east of the perimeter fence	2004	Spring and Fall 2005; Curtail and Escort	NA[l]	Spring 2006	NA	Continue to monitor for noxious weeds (i.e., Canada thistle and hoary cress). Spot spray to control weeds twice per year, as needed.
BORAX-V weeds (inside fence)	Inside the radiological fence, north of Adams Blvd.	2005	Spring and Fall 2005; none[m]	Unknown	Spring 2006	TBD	Transfer to other management. Remove from LTS management. Determine long-term issues. Cancel the annual vegetation assessment unless the cement pad will be removed. If so, amend soil, reseed area, and continue to monitor vegetation and control weeds. Determine the reseeding and/or weed control schedule after the June 2006 vegetation assessment, if appropriate.
BORAX-V revegetation (outside fence)	North of Adams Blvd., south and outside the radiological fence	2005	Spring and Fall 2005; none	2001[n]	Spring 2006	2006 or 2007	Reseed bare areas manually or using the Planet Junior, if possible. Continue to monitor for noxious weeds (i.e., Canada thistle). Spot spray to control weeds twice per year, as needed. Continue annual vegetation monitoring for 2–5 years. Determine the reseeding and/or weed control schedule after the June 2006 vegetation assessment.
Large-scale infiltration test (infiltration basin)	South of the RWMC	2005	Spring and Fall 2005; Weedar and Redeem	Unknown[j]	Spring 2006	2006 or 2007	Continue to monitor for Canada thistle, especially on the rim of the basin, and spray twice a year, as needed. For the stockpile area, follow the recommendations from the Fall 2003 laboratory results, including fertilizing, reseeding, and irrigating, if possible. Continue annual vegetation monitoring for >5 years. Determine the reseeding and/or weed control schedule after the June 2006 vegetation assessment.

Table 1. (continued).

Site Name (Site Alias)	Site Location	Last Vegetation Assessment (Year)	Last Weed Assessment and/or Herbicide Application (Season; Year; Herbicide)	Last Revegetation (Year)	Next Weed Assessment and/or Herbicide Application (Season and Year)	Next Revegetation (Year)	Comments and Recommendations (see Appendix B for details)
ANL-W stockpile (ANL-W weeds)	West of Taylor Blvd. on the south side of Road T-3	2004	Spring and Fall 2005; Curtail and Escort	Unknown	Spring 2006	NA	Revegetation is complete. Cancel the annual vegetation assessment. Continue to monitor for Canada thistle, and spray twice a year, as needed.

a. The site soil has been sterilized at least once and seeded three times.
b. Control noxious weeds in the ditch northeast of the site twice per year, as necessary.
c. Weeds were sprayed before seeding occurred, but the actual year is unknown. The site was seeded twice.
d. The entire site was initially reseeded during Fall 2001; the southeast side of the site was reseeded during Fall 2002.
e. Canada thistle was found on the south end of the west side in previous years.
f. The entire site was initially reseeded during Fall 2001.
g. Canada thistle was found on the road between this well and Well CFA-MON-A-003.
h. Canada thistle was found on the road between this well and Well CFA-MON-A-002 (seeding on the perimeter only).
i. Part of the WAG 5 remediation
j. The site has been reseeded several times.
k. Weeds at the site have been sprayed a few times since 2001.
l. This is a weed control site only, because it is adjacent to the perimeter fence.
m. Canada thistle might have been sprayed at this site during the spring of 2003.
n. The site has been seeded several times. A barrier and sign were installed in 2002.

ANL-W = Argonne National Laboratory-West (now known as Materials and Fuels Complex [MFC])
ARA = Auxiliary Reactor Area
ARVFS = Army Reentry Vehicle Facility Site
BORAX = Boiling Water Reactor Experiment
CFA = Central Facilities Area
EBR = Experimental Breeder Reactor
FY = fiscal year
LTS = Long-Term Stewardship
NA = not applicable
NPTF = New Pump and Treat Facility
OU = operable unit
PBF = Power Burst Facility
RTC = Reactor Technology Complex
RWMC = Radioactive Waste Management Complex
SPERT = Special Power Excursion Reactor Test
SSER = Sagebrush-Steppe Ecological Reserve
TAN = Test Area North
TBD = to be determined
TRA = Test Reactor Area
TSF = Technical Support Facility
WAG = waste area group
WRRTF = Water Reactor Research Test Facility
ZPPR = Zero Power Production Reactor

8. REFERENCES

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42 USC § 9601 et seq., 1980, "Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA/Superfund)," *United States Code,* December 11, 1980.

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Appendix A

Blank Vegetation Assessment Form

Appendix A

Blank Vegetation Assessment Form

A. Site name:

B. Site location:

C. Date (and time, if known) of site's most recent (or next) vegetation assessment:

D. Status of the site (soil tilling, weeding, or seeding of this site; how site appeared during the most recent spring vegetation assessment):

E. Current recommendation (based on best-management practices, i.e., should vegetation monitoring be continued, or has the site reached the Storm Water Pollution Prevention Plan [SWPPP]-recommended 70% of the surrounding vegetation; should annual or biannual weed control be continued; should the site be sampled to determine soil nutrient status?):

F. Time period (seasons) that site should be manually weeded or sprayed for weeds (usually late spring; however, some weeds produce flowers/seeds early and need to be sprayed in early spring while others have early fall regrowth.):

G. Date site is scheduled for weeding:

H. Herbicide used/recommended (if applicable) and any restrictions (i.e., EA-CER-021 for well sites):

I. Date scheduled for site seeding or reseeding (unless being compacted and/or paved):

J. Site size and dimensions (in acres and/or ft^2 and diameter or length × width):

K. Seed rate (in lb per acre) and mix (in lb) used/required (state whether used or required):

L. Fertilizer and amendment rate (in lb per acre) and type used/recommended (if applicable):

M. Noted during the previous vegetation assessment; include the year (and month if possible):

N. Recommendations from the previous vegetation assessment (include the year and, if possible, month):

O. Additional information (e.g., estimated labor needed; type and amount of equipment, if required; path forward after the current vegetation assessment):

Appendix B

Fiscal Year 2005
Assessment Forms for Idaho Cleanup Project
Weed Control and Revegetation Sites

CONTENTS

Appendix B

Fiscal Year 2005
Assessment Forms for Idaho Cleanup Project
Weed Control and Revegetation Sites

Well TAN-27 (TANT-MON-A-027)

A. Site name: **Well TAN-27 (TANT-MON-A-027) outside the Technical Support Facility (TSF) fence**

B. Site location: South of TAN-TSF and the New Pump and Treat Facility (NPTF) and north of Nile Avenue

C. Date and time of site's vegetation assessment: June 22, 2005

D. Status of the site (2005): The large graveled pad is full of native plants, including wheatgrasses, phlox, scurf pea, rabbitbrush, and astragalus. There are very few weeds (only kochia and halogeton). Phlox, mixed wheatgrasses, and rabbitbrush also are present. There is some crested wheatgrass and kochia. The kochia has been sprayed. The perimeter looks good and includes mostly crested wheatgrass, squirreltail, and rabbitbrush. The site has reached the Storm Water Pollution Prevention Plan (SWPPP) -recommended 70% of the surrounding vegetation.

E. Current recommendation (2005): Cancel the annual vegetation assessment. Continue to spot spray weeds. Determine the weed control schedule after the Fall 2005 and Spring 2006 weed assessments.

F. Time period that site should be manually weeded or sprayed for weeds: Spring and fall

G. Date of site's weed assessment and/or date scheduled to be sprayed for weeds: Spring and Fall 2005 and Spring 2006

H. Herbicide used/recommended (if applicable) (2005): Round Up was used (in accordance with EA-CER-021: "…not within 5 ft of a monitoring well").

I. Date scheduled for site seeding or reseeding (unless being compacted and/or paved): Not applicable (NA)

J. Site size and dimensions: <0.1 acre (3,750 ft^2 = 50 × 75 ft)

K. Seed rate and mix used/required: The seed rate and mix used are unknown. The required seed rate is 15.5 lb per acre with a mix of winterfat (4 lb), Indian ricegrass (2 lb), needle and thread grass (2 lb), bottlebrush squirreltail grass (2 lb), Sodar streambank wheatgrass (2 lb), northern sweetvetch (2 lb), green rabbitbrush (1 lb), and Wyoming big sagebrush (0.5 lb).

L. Fertilizer and amendment rate and type used/recommended (if applicable): NA

M. Noted during previous year's vegetation assessments (2004): An approximately 50-ft-wide, two-track gravel road goes to and around the well. The road area is larger than necessary and poorly compacted. A lot of halogeton, some Russian thistle, and kochia are present Adjacent to the well and graveled area are numerous native plants, including thickspike wheatgrass, scurf pea, rockcress, various mustards, and green rabbitbrush. No noxious weeds are present.

N. Recommendations from previous year's vegetation assessments (2004): Spray sterilant to control weeds on the gravel road for another year. Continue annual vegetation monitoring for another year, since the site almost contains the 70% coverage of native perennials compared to the surrounding vegetation in accordance with the former SWPPP goal adopted as a best-management practice at Miscellaneous Sites Cleanup Project revegetation sites. Determine a path forward after the 2005 vegetation assessment.

O. Additional information (2004): Herbicides Escort and Weedar were used (in accordance with EA-CER-021: "…not within 5 ft of a monitoring well").

Well TAN-32 (TANT-MON-A-006)

A. Site name: **Well TAN-32 (TANT-MON-A-006) outside the TSF fence**

B. Site location: South of TAN-TSF and the NPTF, southeast of Well TAN-27, and north of Nile Avenue

C. Date and time of site's vegetation assessment: June 22, 2005

D. Status of the site (2005): Only the southwest and west sides have vegetation because of the access road on the north, southeast, and east sides. The site and the southwest and west perimeters are all crested wheatgrass with some kochia and halogeton. The south and southeast perimeters are dominated by crested wheatgrass with some squirreltail, some other wheatgrasses, and saltbush.

E. Current recommendation (2005): Continue monitoring and managing the vegetation (via the annual assessment) for 2–5 years and conducting weed control, if necessary, until the site meets 70% cover of the background/native perennial species.

F. Time period that site should be manually weeded or sprayed for weeds: Spring and fall

G. Date of site's weed assessment and/or date scheduled to be sprayed for weeds: Spring and Fall 2005 and Spring 2006

H. Herbicide used/recommended (if applicable) (2005): Round Up was used in accordance with EA-CER-021: "…not within 5 ft of a monitoring well").

I. Date scheduled for site seeding or reseeding (unless being compacted and/or paved): NA

J. Site size and dimensions: <0.1 acre (3,600 ft^2 = 60- × 60-ft turnout)

K. Seed rate and mix used/required: The seed rate and mix used are unknown. The required rate is 15.5 lb per acre with a mix of winterfat (4 lb), Indian ricegrass (2 lb), needle and thread grass (2 lb), bottlebrush squirreltail grass (2 lb), Sodar streambank wheatgrass (2 lb), northern sweetvetch (2 lb), green rabbitbrush (1 lb), and Wyoming big sagebrush (0.5 lb).

L. Fertilizer and amendment rate and type used/recommended (if applicable): NA

M. Noted during previous year's vegetation assessments (2004): Gravel is present around the wells; it is sporadic in most places, but it is heavy in others. Crested wheatgrass was seeded in this area before and is now doing well. Some halogeton is present. Some soil is present from upslope sliding due to rainwater. Occasional native plants observed are squirreltail, amaranth, green and gray rabbitbrush, yellow sweet clover, and mustards.

N. Recommendations from previous year's vegetation assessments (2004): Spray sterilant to control weeds on the gravel road for another year. Continue annual vegetation monitoring for another year, since the site almost contains the 70% coverage of native perennials compared to the surrounding vegetation in accordance with the former SWPPP goal adopted as a best-management practice at Miscellaneous Sites Cleanup Project revegetation sites. Determine a path forward after the 2005 vegetation assessment.

O. Additional information (2004): Herbicides Escort and Weedar were used (in accordance with EA-CER-021: "…not within 5 ft of a monitoring well").

Well TAN-34 (TANT-MON-A-008)

A. Site name: **Well TAN-34 (TANT-MON-A-008) outside the TSF fence**

B. Site location: South of TAN-TSF and NPTF, southeast of Well TAN-32, and north of Nile Avenue

C. Date and time of site's vegetation assessment: June 22, 2005

D. Status of the site (2005): There is sparse vegetation: only crested wheatgrass, squirreltail, and kochia. The south and southeast perimeters are dominated by crested wheatgrass with some squirreltail, some other wheatgrasses, and saltbush.

E. Current recommendation (2005): Continue monitoring and managing the vegetation (via the annual assessment) for 2–5 years and conducting weed control, if necessary, until the site meets 70% cover of the background/native perennial species.

F. Time period that site should be manually weeded or sprayed for weeds: Spring and fall.

G. Date of site's weed assessment and/or date scheduled to be sprayed for weeds:
Spring and Fall 2005 and Spring 2006

H. Herbicide used/recommended (if applicable) (2005): Round Up was used (in accordance with EA-CER-021: "…not within 5 ft of a monitoring well").

I. Date scheduled for site seeding or reseeding (unless being compacted and/or paved): NA

J. Site size and dimensions: <0.1 acre (3,600 ft^2 = 60- × 60-ft turnaround)

K. Seed rate and mix used/required: The seed rate and mix used are unknown. The required rate is 15.5 lb per acre with a mix of winterfat (4 lb), Indian ricegrass (2 lb), needle and thread grass (2 lb), bottlebrush squirreltail grass (2 lb), Sodar streambank wheatgrass (2 lb), northern sweetvetch (2 lb), green rabbitbrush (1 lb), and Wyoming big sagebrush (0.5 lb).

L. Fertilizer and amendment rate and type used/recommended (if applicable): NA

M. Noted during previous year's vegetation assessments (2004): Gravel is present around the wells; it is sporadic in most places, but it is heavy in others. Crested wheatgrass was seeded in this area before and is now doing well. Some halogeton is present. Some soil is present from upslope sliding due to rainwater. Occasional native plants observed are squirreltail, amaranth, green and gray rabbitbrush, yellow sweet clover, and mustards. (2003): During the July 2003 vegetation assessment, the site appeared to have very sparse crested wheatgrass and halogeton, a non-native annual weed.

N. Recommendations from previous year's vegetation assessments (2004): Spray sterilant to control weeds on the gravel road for another year. Continue annual vegetation monitoring for another year, since the site almost contains the 70% coverage of native perennials compared to the surrounding vegetation in accordance with the former SWPPP goal adopted as a best-management practice at Miscellaneous Sites Cleanup Project revegetation sites. Determine a path forward after the 2005 vegetation assessment.

O. Additional information (2004): Herbicides Escort and Weedar were used (in accordance with EA-CER-021: "…not within 5 ft of a monitoring well").

Well TAN-35 (TANT-MON-A-009)

A. Site name: **Well TAN-35 (TANT-MON-A-009) outside the TSF fence**

B. Site location: South of TAN-TSF and the NPTF, north of Well TAN-34, and north of Nile Avenue

C. Date and time of site's vegetation assessment: June 22, 2005

D. Status of the site (2005): Crested wheatgrass is dominant. Some kochia, other wheatgrasses, and rabbitbrush also are present. Squirreltail is visible in the edges of the gravel. There are large patches of halogeton. There are also random scattered native grasses and shrubs. The north and northeast perimeters are dominated by crested wheatgrass with some squirreltail and other wheatgrasses.

E. Current recommendation (2005): No action. Continue monitoring and managing the vegetation (via the annual assessment) for 2–5 years and conducting weed control (i.e., spot spraying for kochia and halogeton, as necessary) until the site meets 70% cover of the background/native perennial species.

F. Time period that site should be manually weeded or sprayed for weeds: Spring and Fall 2004

G. Date of site's weed assessment and/or date scheduled to be sprayed for weeds:
Spring and Fall 2005 and Spring 2006

H. Herbicide used/recommended (if applicable) (2005): Round Up was used (in accordance with EA-CER-021: "…not within 5 ft of a monitoring well").

I. Date scheduled for site seeding or reseeding (unless being compacted and/or paved): NA

J. Site size and dimensions: <0.1 acre (3,600 ft^2 = 60- × 60-ft turnaround)

K. Seed rate and mix used/required: The seed rate and mix used are unknown. The required rate is 15.5 lb per acre with a mix of winterfat (4 lb), Indian ricegrass (2 lb), needle and thread grass (2 lb), bottlebrush squirreltail grass (2 lb), Sodar streambank wheatgrass (2 lb), northern sweetvetch (2 lb), green rabbitbrush (1 lb), and Wyoming big sagebrush (0.5 lb).

L. Fertilizer and amendment rate and type used/recommended (if applicable): NA

M. Noted during the previous year's vegetation assessments (2004): Gravel is present around the well; the gravel is sporadic in places, but it is heavy in others. Crested wheatgrass seeded in the area before is now doing well. Some halogeton is present. Some soil is present from upslope sliding due to rainwater. Occasional native plants observed are squirreltail, amaranth, green and gray rabbitbrush, yellow sweet clover, and mustards.

N. Recommendations from previous year's vegetation assessments (2004): Spray sterilant to control weeds on the gravel road for another year. Continue annual vegetation monitoring for another year, since the site almost contains the 70% coverage of native perennials compared to the surrounding vegetation in accordance with the former SWPPP goal adopted as a best-management practice at Miscellaneous Sites Cleanup Project revegetation sites. Determine a path forward after the 2005 vegetation assessment.

O. Additional information (2004): Herbicides Escort and Weedar were used (in accordance with EA-CER-021: "…not within 5 ft of a monitoring well").

Well TAN-36 (TANT-MON-A-010)

A. Site name: **Well TAN-36 (TANT-MON-A-010) outside the TSF fence**

B. Site location: South of TAN-TSF and northwest of the intersection of Lincoln Boulevard and Nile Avenue

C. Date and time of site's vegetation assessment: NA

D. Status of the site (2005): No weeds were observed during the Fall 2005 weed assessment.

E. Current recommendation (2005): Assess for weeds annually in the spring.

F. Time period that site should be manually weeded or sprayed for weeds: Spring

G. Date of site's weed assessment and/or date scheduled to be sprayed for weeds: Spring 2006

H. Herbicide used/recommended (if applicable) (2005): No herbicides were used. (2004): Escort and Weedar were used (in accordance with EA-CER-021: "…not within 5 ft of a monitoring well").

I. Date scheduled for site seeding or reseeding (unless being compacted and/or paved): NA

J. Site size and dimensions: <0.2 acre (7,200 ft^2 = 60 × 120 ft, including Wells TAN-45 and TAN-46)

K. Seed rate and mix used/required: The seed rate and mix used are unknown. The required rate is 15.5 lb per acre with a mix of winterfat (4 lb), Indian ricegrass (2 lb), needle and thread grass (2 lb), bottlebrush squirreltail grass (2 lb), Sodar streambank wheatgrass (2 lb), northern sweetvetch (2 lb), green rabbitbrush (1 lb), and Wyoming big sagebrush (0.5 lb).

L. Fertilizer and amendment rate and type used/recommended (if applicable): NA

M. Noted during previous vegetation assessments (2004): A good two-track road into the wells is present. The surrounding area has good native plant growth, including prickly pear, winterfat, saltbush, and other shrubs. The primary grass is crested wheatgrass. Some halogeton and kochia are present.

N. Recommendations from previous vegetation assessments (2004): Spray sterilant to control weeds on the gravel road for another year. Cancel the annual vegetation monitoring, since the site contains the 70% coverage of native perennials compared to the surrounding vegetation in accordance with the former SWPPP goal adopted as a best-management practice at Miscellaneous Sites Cleanup Project revegetation sites.

O. Additional information: NA

Well TAN-45 (TANT-MON-A-019)

A. Site name: **Well TAN-45 (TANT-MON-A-019) outside the TSF fence**

B. Site location: South of TAN-TSF, northwest of the intersection of Lincoln Boulevard and Nile Avenue and Well TAN-36

C. Date and time of site's vegetation assessment: NA

D. Status of the site (2005): No weeds were observed during the Fall 2005 weed assessment.

E. Current recommendation (2005): Assess for weeds annually in the spring.

F. Time period that site should be manually weeded or sprayed for weeds: Spring

G. Date of site's weed assessment and/or date scheduled to be sprayed for weeds: Spring 2006

H. Herbicide used/recommended (if applicable) (2005): No herbicides were used.

I. Date scheduled for site seeding or reseeding (unless being compacted and/or paved): NA

J. Site size and dimensions: <0.2 acre (7,200 ft^2 = 60 $\times$ 120 ft, including Wells TAN-36 and TAN-46)

K. Seed rate and mix used/required: The seed rate and mix used are unknown. The required rate is 15.5 lb per acre with a mix of winterfat (4 lb), Indian ricegrass (2 lb), needle and thread grass (2 lb), bottlebrush squirreltail grass (2 lb), Sodar streambank wheatgrass (2 lb), northern sweetvetch (2 lb), green rabbitbrush (1 lb), and Wyoming big sagebrush (0.5 lb).

L. Fertilizer and amendment rate and type used/recommended (if applicable): NA

M. Noted during previous vegetation assessments (2004): A good two-track road into the well is present. The surrounding area has good native plant growth, including prickly pear, winterfat, saltbush, and other shrubs. The primary grass is crested wheatgrass. Some halogeton and kochia are present.

N. Recommendations from previous vegetation assessments (2004): Spray sterilant to control weeds on the gravel road for another year. Cancel the annual vegetation monitoring, since the site contains the 70% coverage of native perennials compared to the surrounding vegetation in accordance with the former SWPPP goal adopted as a best-management practice at Miscellaneous Sites Cleanup Project revegetation sites.

O. Additional information (2004): Herbicides Escort and Weedar were used (in accordance with EA-CER-021: "…not within 5 ft of a monitoring well").

Well TAN-46 (TANT-MON-A-020)

A. Site name: **Well TAN-46 (TANT-MON-A-020) outside the TSF fenc**e

B. Site location: South of TAN-TSF, northwest of the intersection of Lincoln Boulevard and Nile Avenue, and west of Well TAN-36

C. Date and time of site's vegetation assessment: NA

D. Status of the site (2005): No weeds were observed during the Fall 2005 weed assessment.

E. Current recommendation (2005): Assess for weeds annually in the spring.

F. Time period that site should be manually weeded or sprayed for weeds: Spring

G. Date of site's weed assessment and/or date scheduled to be sprayed for weeds: Spring 2006

H. Herbicide used/recommended (if applicable) (2005): No herbicides were used.

I. Date scheduled for site seeding or reseeding (unless being compacted and/or paved): NA

J. Site size and dimensions: <0.2 acre (7,200 ft^2 = 60 × 120 ft, including Wells TAN-36 and TAN-45)

K. Seed rate and mix used/required: The seed rate and mix used are unknown. The required rate is 15.5 lb per acre with a mix of winterfat (4 lb), Indian ricegrass (2 lb), needle and thread grass (2 lb), bottlebrush squirreltail grass (2 lb), Sodar streambank wheatgrass (2 lb), northern sweetvetch (2 lb), green rabbitbrush (1 lb), and Wyoming big sagebrush (0.5 lb).

L. Fertilizer and amendment rate and type used/recommended (if applicable): NA

M. Noted during previous year's vegetation assessments (2004): A good two-track road into the well is present. The surrounding area has good native plant growth, including prickly pear, winterfat, saltbush, and other shrubs. The primary grass is crested wheatgrass. Some halogeton and kochia are present.

N. Recommendations from previous year's vegetation assessments (2004): Spray sterilant to control weeds on the gravel road for another year. Cancel the annual vegetation monitoring, since the site contains the 70% coverage of native perennials compared to the surrounding vegetation in accordance with the former SWPPP goal adopted as a best-management practice at Miscellaneous Sites Cleanup Project revegetation sites.

O. Additional information (2004): Herbicides Escort and Weedar were used (in accordance with EA-CER-021: "…not within 5 ft of a monitoring well").

Well TAN-47 (TANT-MON-A-047)

A. Site name: **Well TAN-47 (TANT-MON-A-047) outside the TSF fence**

B. Site location: Outside TAN-TSF, southwest of the intersection of Lincoln Boulevard and Nile Avenue

C. Date and time of site's vegetation assessment: NA

D. Status of the site (2005): No weeds were observed during the Fall 2005 weed assessment.

E. Current recommendation (2005): Assess for weeds annually in the spring.

F. Time period that site should be manually weeded or sprayed for weeds: Spring

G. Date of site's weed assessment and/or date scheduled to be sprayed for weeds: Spring 2006

H. Herbicide used/recommended (if applicable) (2005): No herbicides were used.

I. Date scheduled for site seeding or reseeding (unless being compacted and/or paved): NA

J. Site size and dimensions: <0.2 acre (5,000 ft^2 = 50 × 100 ft)

K. Seed rate and mix used/required: The seed rate and mix used are unknown. The required rate is 15.5 lb per acre with a mix of winterfat (4 lb), Indian ricegrass (2 lb), needle and thread grass (2 lb), bottlebrush squirreltail grass (2 lb), Sodar streambank wheatgrass (2 lb), northern sweetvetch (2 lb), green rabbitbrush (1 lb), and Wyoming big sagebrush (0.5 lb).

L. Fertilizer and amendment rate and type used/recommended (if applicable): To be determined

M. Noted during previous year's vegetation assessments (2004): The gravel distribution and compaction are better than they are at other Test Area North (TAN) wells. The berm above the well has a good compilation of native plants, which are starting to appear around the area. Some halogeton and crested wheatgrass are present.

N. Recommendations from previous year's vegetation assessments (2004): Spray sterilant to control weeds on the gravel road for another year. Cancel the annual vegetation monitoring, since the site contains the 70% coverage of native perennials compared to the surrounding vegetation in accordance with the former SWPPP goal adopted as a best-management practice at Miscellaneous Sites Cleanup Project revegetation sites.

O. Additional information (2004): Herbicides Escort and Weedar were used (in accordance with EA-CER-021: "…not within 5 ft of a monitoring well").

Well TAN-48 (TANT-MON-A-048)

A. Site name: **Well TAN-48 (TANT-MON-A-048) outside the TSF fence**

B. Site location: Outside TAN-TSF, east of TAN-601, and south of the intersection of Lincoln and Taft Boulevards

C. Date and time of site's vegetation assessment: June 22, 2005

D. Status of the site (2005): The gravel pad compaction is better here than at the Central Facilities Area (CFA) wells. This is a large, deep graveled area with little or no compaction. A few large crested wheatgrass plants with random forb and shrub growth (such as phlox, lomatium species, rabbitbrush, winterfat, and saltbush) are present. Some kochia and a few halogeton are present. Kochia has been sprayed. More natives are slowly encroaching from the undisturbed edges. The perimeter is mostly crested wheatgrass; however, a lot of natives also are present, including mixed wheatgrasses, Atriplex, Cryptantha, squirreltail, winterfat, and rabbitbrush. This site had an entry road added and the gravel pad compacted during late Summer 2005. On August 29, 2005, the entry road appeared adequate, but the rest of the road to the site needed gravel and the well pad needed to be recompacted. Although the site was scheduled to be repaired in early September 2005, the gravel was spread throughout, resulting in a much larger site (i.e., a 20-ft-wide entry road expanding to 50 ft wide on the north side of the wellhead). On November 23, 2005, an approximately 40 ft long by 20 ft wide (five drill lines) area on the east side of the site was reseeded using the Planet Junior. In addition, a shovel was used every 2–3 ft on the south and west sides to dig and cover approximately 1-in. holes to reseed within halogeton and crested wheatgrass monocultures and in the bare areas or but not in the playas.

E. Current recommendation (2005): Re-seed the bare areas on the perimeter of the site. Continue monitoring and managing the vegetation (via the annual assessment) for >5 years and continue conducting weed control, if necessary, until the site meets 70% cover of the background/native perennial species.

F. Time period that site should be manually weeded or sprayed for weeds: Spring and fall

G. Date of site's weed assessment and/or date scheduled to be sprayed for weeds:
Spring and Fall 2005 and Spring 2006

H. Herbicide used/recommended (if applicable) (2005): Round Up was used.

I. Date scheduled for site seeding or reseeding (unless being compacted and/or paved):
To be determined

J. Site size and dimensions: <0.2 acre (4,800 ft^2 = 60 × 80 ft)

K. Seed rate and mix used/required: The seed rate and mix used are unknown. The required rate is 15.5 lb per acre with a mix of winterfat (4 lb), Indian ricegrass (2 lb), needle and thread grass (2 lb), bottlebrush squirreltail grass (2 lb), Sodar streambank wheatgrass (2 lb), northern sweetvetch (2 lb), green rabbitbrush (1 lb), and Wyoming big sagebrush (0.5 lb).

L. Fertilizer and amendment rate and type used/recommended (if applicable): To be determined

M. Noted during previous vegetation assessments (2004): A gravel pad is present next to the TAN perimeter fence. Kochia and halogeton are present in the gravel. A few native plants are scattered intermittently: rabbitbrush, squirreltail, and psoralia. The power-line brace area contains an ample supply of halogeton and kochia as well as numerous native plants.

N. Recommendations from previous vegetation assessments (2004): Reseed the perimeter of the site with the Truax Spray sterilant to control weeds on the gravel entrance road, if necessary. Continue annual vegetation monitoring until the site contains the 70% coverage of native perennials compared to the surrounding vegetation in accordance with the former SWPPP goal adopted as a best-management practice at Miscellaneous Sites Cleanup Project revegetation sites. Determine a path forward after the 2005 vegetation assessment.

O. Additional information (2004): Herbicides Escort and Weedar were used (in accordance with EA-CER-021: "…not within 5 ft of a monitoring well").

Well TAN-51 (TANT-MON-A-051)

A. Site name: **Well TAN-51 (TANT-MON-A-051) outside the TSF fence**

B. Site location: Southeast of TAN-TSF, south of Highway 33, between Wells TAN-54 and TAN-55

C. Date and time of site's vegetation assessment: June 22, 2005

D. Status of the site (2005): There are halogeton and crested wheatgrass throughout this site. Some wheatgrasses and Indian ricegrass also are present. There are large patches of bare ground and very few forbs. Along the road, halogeton and crested wheatgrass are present. Crested wheatgrass also is present near the wellhead. The perimeter (on the southside) has winterfat, Indian ricegrass, squirreltail, rabbitbrush, and phlox. This site had the gravel at the well pad compacted during Summer 2005. Unfortunately, on August 29, 2005, an entire 60-ft-diameter pad was constructed, instead of only a 15-ft pad on the north side of the wellhead. Although the site was scheduled to be repaired in early September 2005, gravel appears compact but was spread in a wider and thinner oval-shaped layer (approximately 120 ft on the north-south end by 70 ft on the east-west side).

E. Current recommendation (2005): Re-seed/re-vegetate the area. Since this site is within the Sagebrush-Steppe Ecological Reserve (SSER), revegetation sources must be from the SSER: fall planting of seedlings or seeds collected from the SSER. Continue monitoring and managing the vegetation (via the annual assessment) for >5 years and conducting weed control (i.e., spraying halogeton), as necessary, until the disturbed area meets 70% cover of the background/native perennial species.

F. Time period that site should be manually weeded or sprayed for weeds: Spring and fall

G. Date of site's weed assessment and/or date scheduled to be sprayed for weeds:
Spring and Fall 2005 and Spring 2006

H. Herbicide used/recommended (if applicable) (2005): Round Up was used.

I. Date scheduled for site seeding or reseeding (unless being compacted and/or paved): To be determined—within the SSER.

J. Site size and dimensions: <0.1 acre (1,256 ft^2 = 20-ft radius on the north side)

K. Seed rate and mix used/required: The seed rate and mix used are unknown. The required rate is 15.5 lb per acre with a mix of winterfat (4 lb), Indian ricegrass (2 lb), needle and thread grass (2 lb), bottlebrush squirreltail grass (2 lb), Sodar streambank wheatgrass (2 lb), northern sweetvetch (2 lb), green rabbitbrush (1 lb), and Wyoming big sagebrush (0.5 lb).

L. Fertilizer and amendment rate and type used/recommended (if applicable): To be determined

M. Noted during previous vegetation assessments (2004): A road runs through the site. The parking side of the well area is in poor condition. The rest of the area has good grasses, winterfat, rabbitbrush, shrubby buckwheat, and prickly pear.

N. Recommendations from previous vegetation assessments (2004): Reseed the perimeter of the site with the Truax spray sterilant to control weeds on the gravel turnout road, if necessary, and a halogeton patch adjacent to the well. Continue annual vegetation monitoring until the site contains the 70% coverage of native perennials compared to the surrounding vegetation in accordance with the former SWPPP goal adopted as a best-management practice at Miscellaneous Sites Cleanup Project revegetation sites. Determine a path forward after the 2005 vegetation assessment.

O. Additional information (2004): Herbicides Escort and Weedar were used (in accordance with EA-CER-021: "…not within 5 ft of a monitoring well").

Well TAN-52 (TANT-MON-A-052)

A. Site name: **Well TAN-52 (TANT-MON-A-052) outside the TSF fence**

B. Site location: Southeast of TAN-TSF, south of Highway 33 and Well TAN-55

C. Date and time of site's vegetation assessment: June 22, 2005

D. Status of the site (2005): There is good, although sparse, native grass establishment. There are new grass/small seedlings this year, including several wheatgrasses and Indian ricegrass. There are very few forbs and various shrubs (i.e., winterfat, rabbitbrush, and shrubby buckwheat). Phlox and sagebrush also are present. There is one bare spot on the northeast side. There is a minimal amount of kochia and halogeton. The perimeter contains crested wheatgrass.

E. Current recommendation (2005): No action. Since this site is within the Sagebrush-Steppe Ecological Reserve (SSER), revegetation sources must be from the SSER: fall planting of seedlings or seeds collected from the SSER. Continue monitoring and managing the vegetation (via the annual assessment) for >5 years and conducting weed control, if necessary, until the site meets 70% cover of the background/native perennial species.

F. Time period that site should be manually weeded or sprayed for weeds: Spring and fall

G. Date of site's weed assessment and/or date scheduled to be sprayed for weeds:
Spring and Fall 2005 and Spring 2006

H. Herbicide used/recommended (if applicable) (2005): Round Up was used (in accordance with EA-CER-021: "…not within 5 ft of a monitoring well").

I. Date scheduled for site seeding or reseeding (unless being compacted and/or paved):
To be determined

J. Site size and dimensions: 0.26 acre (11,304 ft^2 = 120-ft-diameter turnaround)

K. Seed rate and mix used/required: The seed rate and mix used are unknown. The required rate is 15.5 lb per acre with a mix of winterfat (4 lb), Indian ricegrass (2 lb), needle and thread grass (2 lb), bottlebrush squirreltail grass (2 lb), Sodar streambank wheatgrass (2 lb), northern sweetvetch (2 lb), green rabbitbrush (1 lb), and Wyoming big sagebrush (0.5 lb).

L. Fertilizer and amendment rate and type used/recommended (if applicable): NA

M. Noted during previous year's vegetation assessments (2004): A large bladed area now is full of halogeton. A two-track road into the well looks okay. There is good rhizomatous grass growth in the well area and good native plant establishment around the edges. Some old sagebrush is starting to come back.

N. Recommendations from previous year's vegetation assessments (2004): Selectively spray only for halogeton, if possible. Continue annual vegetation monitoring until the site contains the 70% coverage of native perennials compared to the surrounding vegetation in accordance with the former SWPPP goal adopted as a best-management practice at Miscellaneous Sites Cleanup Project revegetation sites. Determine a path forward after the 2005 vegetation assessment.

O. Additional information (2004): Escort and Weedar were used (in accordance with EA-CER-021: "…not within 5 ft of a monitoring well").

Well TAN-53A (TANT-INJ-A-053A)

A. Site name: **Well TAN-53A (TANT-INJ-A-053A) outside the TSF fence**

B. Site location: Outside TAN-TSF and east of TAN-601

C. Date and time of site's vegetation assessment: June 22, 2005

D. Status of the site (2005): This is a large gravel pad full of kochia intermixed with large patches of halogeton. The surrounding area looks okay, but it does contain some cheatgrass. Some squirreltail is present. There is no rabbitbrush, which was present in the 2004 assessment. This well is under a different program and will be managed by a different group in the future. There are no records of seeding, management, weed control, etc.

E. Current recommendation (2005): Transfer the site to other management, since part of the TAN NPTF and all these wells are not under Long-Term Stewardship (LTS) management.

F. Time period that site should be manually weeded or sprayed for weeds: Spring and fall

G. Date of site's weed assessment and/or date scheduled to be sprayed for weeds: NA

H. Herbicide used/recommended (if applicable) (2005): No herbicides were used.

I. Date scheduled for site seeding or reseeding (unless being compacted and/or paved): NA; concrete barriers surround the wellhead, and the site is covered with gravel.

J. Site size and dimensions: <0.1 acre (100 ft = 10 × 10 ft)

K. Seed rate and mix used/required: The seed rate and mix used are unknown. No reseeding is recommended at this site.

L. Fertilizer and amendment rate and type used/recommended (if applicable): NA

M. Noted during previous vegetation assessments (2004): A gravel pad is present next to the TAN perimeter fence. Kochia and halogeton are present in the gravel. A few native plants are scattered intermittently: rabbitbrush, squirreltail, and psoralia.

N. Recommendations from previous vegetation assessments (2004): Spray sterilant to control weeds on the gravel pad for another year. Continue annual vegetation monitoring for another year, since the site almost contains the 70% coverage of native perennials compared to the surrounding vegetation, in accordance with the former SWPPP goal adopted as a best-management practice at Miscellaneous Sites Cleanup Project revegetation sites. Determine a path forward after the 2005 vegetation assessment.

O. Additional information (2004): Escort and Weedar were used (in accordance with EA-CER-021: "…not within 5 ft of a monitoring well").

Well TAN-54 (TANT-MON-A-054)

A. Site name: **Well TAN-54 (TANT-MON-A-054) outside the facility fence**

B. Site location: Southeast of TAN-TSF, south of Highway 33, and southwest of TAN-51

C. Date and time of site's vegetation assessment: June 22, 2005

D. Status of the site (2005): There is very sparse vegetation: some crested wheatgrass, Indian ricegrass, winterfat, and phlox. The compacted area has deep seed-drill lines. Well drill cuttings are scattered across the site and might be impacting the plant growth. The perimeter has crested wheatgrass, halogeton, winterfat, kochia, Indian ricegrass, other wheatgrasses, and squirreltail. This site had a gravel pad constructed during late Summer 2005. Unfortunately, on August29, 2005, only half of the pad on the north side of the wellhead was constructed. The site was repaired in early September 2005. On September 21, 2005, the gravel appeared compact enough, but there is still a lot of bare ground on the south and west sides of the wellhead.

E. Current recommendation (2005): This site either can be left for another year or seed may be added with the Planet Junior to the bare areas. This area would probably recover more quickly with the addition of water. Since this site is within the Sagebrush-Steppe Ecological Reserve (SSER), revegetation sources must be from the SSER: fall planting of seedlings or seeds collected from the SSER. Continue monitoring and managing the vegetation (via the annual assessment) for >5 years and conducting weed control, if necessary, until the disturbed area meets 70% cover of background/native perennial species.

F. Time period that site should be manually weeded or sprayed for weeds: Spring and fall

G. Date of site's weed assessment and/or date scheduled to be sprayed for weeds:
Spring and Fall 2005 and Spring 2006

H. Herbicide used/recommended (if applicable) (2005): Round Up was used (in accordance with EA-CER-021: "…not within 5 ft of a monitoring well").

I. Date scheduled for site seeding or reseeding (unless being compacted and/or paved):
To be determined

J. Site size and dimensions: 0.52 acre (22,686 ft^2 = 85-ft radius)

K. Seed rate and mix used/required: The seed rate used was 15.5 lb per acre. The seed mix used in November 2001 was winterfat (4 lb), Indian ricegrass (2 lb), needle and thread grass (2 lb), bottlebrush squirreltail grass (2 lb), Sodar streambank wheatgrass (2 lb), northern sweetvetch (2 lb), green rabbitbrush (1 lb), and Wyoming big sagebrush (0.5 lb).

L. Fertilizer and amendment rate and type used/recommended (if applicable): To be determined

M. Noted during previous year's vegetation assessments (2004): A huge bladed area is full of halogeton. Some native grasses and a few other native plants are present. The ground feels compacted and has extremely deep drill lines.

N. Recommendations from previous year's vegetation assessments (2004): Test the soil during the fall of 2004 or after the Spring 2005 assessment. Treat the site, as necessary, in accordance with the test results. Reseed the perimeter of the site with Truax during either the Fall of 2004 or 2005. If necessary, spray sterilant to control weeds on the gravel road. Continue annual vegetation monitoring until the site contains the 70% coverage of native perennials compared to the surrounding vegetation in accordance with the former SWPPP goal adopted as a best-management practice at Miscellaneous Sites Cleanup Project revegetation sites. Determine a path forward after the 2005 vegetation assessment.

O. Additional information (2004): Herbicides Escort and Weedar were used (in accordance with EA-CER-021: "…not within 5 ft of a monitoring well"). During the spring or fall of 2004, the site is scheduled for a compacted gravel turnaround well pad and a two-track road that will connect to an established two-track road.

Well TAN-55 (TANT-MON-A-055)

A. Site name: **Well TAN-55 (TANT-MON-A-055) outside the facility fence**

B. Site location: Southeast of TAN-TSF, south of Highway 33, and northeast of TAN-51

C. Date and time of site's vegetation assessment: June 22, 2005

D. Status of the site (2005): Crested wheatgrass dominates this site. There are minor amounts of other wheatgrasses and some squirreltail. There is also a minimal amount of halogeton, but it has been sprayed recently. The perimeter is all crested wheatgrass. There are no other seed sources. This site had a gravel pad constructed during late Summer 2005. The gravel needs to be compacted. On August 29, 2005, this site appeared to be adequately compacted. On September 21, 2005, the site appeared to be further compacted, but the road between this well and the well to the southwest was much wider (approximately 20 ft wide) than a two-track road. On November 23, 2005, the bare areas and the halogeton and crested wheatgrass monocultures were reseeded. The Planet Junior could not be used since the site was too bumpy. Therefore, a shovel was used to dig and cover approximately 1-in. holes to reseed every 1–2 ft on the south, east and northeast perimeters and around the well head. No seeding was conducted on the north and west perimeters because those parts of the site contained only gravel, not soil.

E. Current recommendation (2005): No action. Continue monitoring and managing the vegetation (via the annual assessment) for >5 years and conducting weed control, if necessary, for a few more years to determine how quickly the crested wheatgrass takes over this site.

F. Time period that site should be manually weeded or sprayed for weeds: Spring and fall

G. Date of site's weed assessment and/or date scheduled to be sprayed for weeds:
Spring and Fall 2005 and Spring 2006

H. Herbicide used/recommended (if applicable) (2005): Round Up was used (in accordance with EA-CER-021: "…not within 5 ft of a monitoring well").

I. Date scheduled for site seeding or reseeding (unless being compacted and/or paved):
To be determined

J. Site size and dimensions: <0.2 acre (7,850 ft^2 = 50-ft radius)

K. Seed rate and mix used/required: The seed rate used was 15.5 lb per acre. The seed mix used in November 2001 was winterfat (4 lb), Indian ricegrass (2 lb), needle and thread grass (2 lb), bottlebrush squirreltail grass (2 lb), Sodar streambank wheatgrass (2 lb), northern sweetvetch (2 lb), green rabbitbrush (1 lb), and Wyoming big sagebrush (0.5 lb).

L. Fertilizer and amendment rate and type used/recommended (if applicable): To be determined

M. Noted during previous year's vegetation assessments (2004): Teeming amounts of halogeton are present at this site. Crested wheatgrass is the only other species onsite. The soil "appears" to be in good condition, as is the two-track road into the site. The entire surrounding area is crested wheatgrass, which will eventually out-compete the native plants.

N. Recommendations from previous year's vegetation assessments (2004): Spray specifically for halogeton, if possible, onsite. Reseed the entire site with the Truax during the fall of 2004. Add organic matter/amendments. If necessary, spray sterilant to control weeds on the gravel road only. Continue annual vegetation monitoring until the site contains the 70% coverage of native perennials compared to the surrounding vegetation in accordance with the former SWPPP goal adopted as a best-management practice at Miscellaneous Sites Cleanup Project revegetation sites. Determine a path forward after the 2005 vegetation assessment.

O. Additional information (2004): Herbicides Escort and Weedar were used (in accordance with EA-CER-021: "…not within 5 ft of a monitoring well"). The site is scheduled for a compacted gravel turnaround well pad and a two-track road during the spring or fall of 2004.

Well TAN-56 (TANT-MON-A-056)

A. Site name: **Well TAN-56 (TANT-MON-A-056) outside the facility fence**

B. Site location: Southeast of TAN-TSF and McKinley Boulevard and south of the Water Reactor Research Test Facility (WRRTF)

C. Date and time of site's vegetation assessment: June 22, 2005

D. Status of the site (2005): There is a huge bladed area consisting of bare ground and halogeton patches. There is one patch of native grass (i.e., Indian ricegrass: only 1 drill line northeast of the wellhead) with a few rabbitbrush, winterfat, and phlox. Mustards, mixed wheatgrasses, and halogeton also are present. The perimeter has winterfat, sagebrush, squirreltail, mustards, and globemallow. On October 27, 2005, composite soil samples from 4 areas around the well head were collected between approximately 0 and 8 in. using the soil probe.

E. Current recommendation (2005): Start over, test the soil, and follow the recommendations (i.e., amend, reseed, and irrigate). Reseed with grass mix and winterfat only manually or carefully with a drill (i.e., Planet Junior) around "good" areas. (There might have been a problem with drilling seed in 2001.) An irrigation source might need to be used to establish plants. Since this site is within the Sagebrush-Steppe Ecological Reserve (SSER), revegetation sources must be from the SSER: fall planting of seedlings or seeds collected from the SSER. Continue monitoring and managing the vegetation (via the annual assessment) for >5 years and conducting weed control (spraying halogeton), as necessary, until the site meets 70% cover of the background/native perennial species. The analytical results indicate that the soil is very high in excess lime (CaO), has a high pH (8.4) and has high sodium (Na^+). Amending the site with elemental sulfur (S) or gypsum ($CaSO_4$ x $2H_20$) would reduce the harmful effects of these properties.

F. Time period that site should be manually weeded or sprayed for weeds: Spring and fall

G. Date of site's weed assessment and/or date scheduled to be sprayed for weeds:
Spring and Fall 2005 and Spring 2006

H. Herbicide used/recommended (if applicable) (2005): Round Up was used (in accordance with EA-CER-021: "…not within 5 ft of a monitoring well").

I. Date scheduled for site seeding or reseeding (unless being compacted and/or paved):
To be determined—within the SSER; possibly in the Spring of 2006

J. Site size and dimensions: 0.26 acre (11,304 ft^2 = 60-ft radius)

K. Seed rate and mix used/required: The seed rate used was 15.5 lb per acre. The seed mix used in November 2001 consisted of winterfat (4 lb), Indian ricegrass (2 lb), needle and thread grass (2 lb), bottlebrush squirreltail grass (2 lb), Sodar streambank wheatgrass (2 lb), northern sweetvetch (2 lb), green rabbitbrush (1 lb), and Wyoming big sagebrush (0.5 lb).

L. Fertilizer and amendment rate and type used/recommended (if applicable): To be determined

M. Noted during previous year's vegetation assessments (2004): There is no gravel on these sites (TAN-56, TAN-57, and TAN-58). TAN-56 is similar to TAN-57, but the general condition is worse overall. Only one patch of grass and some winterfat are present. The soil is more compacted and has more clay. (Note: Areas of darker/different soil at the well area are present where the native plants are more common. Why?)

N. Recommendations from previous year's vegetation assessments (2004): Do not add gravel; the road will be impassable in the mud anyway. The native plants are doing well enough to continue management as is. Spray sterilant to control weeds on the gravel road for another year. Continue annual vegetation monitoring until the site contains the 70% coverage of native perennials compared to the surrounding vegetation in accordance with the former SWPPP goal adopted as a best-management practice at Miscellaneous Sites Cleanup Project revegetation sites. Determine a path forward after the 2005 vegetation assessment. If no new growth occurs, sample the soil in 2005. The site might need topsoil and should then be reseeded manually during the Fall of 2005.

O. Additional information (2004): Herbicides Escort and Weedar were used (in accordance with EA-CER-021: "…not within 5 ft of a monitoring well"). In late April 2004, the site was visited to assess the weed growth. The site was scheduled for a compacted gravel turnaround well pad and a two-track road during the spring or fall of 2004. Soil tilling and seed drilling were completed on November 1, 2001. Sites were new construction areas and showed no weed growth. The area was seeded during a rainy fall, and snow blanketed the site from late November 2001 until February 2002.

Well TAN-57 (TANT-MON-A-057)

A. Site name: **Well TAN-57 (TANT-MON-A-057) outside the facility fence**

B. Site location: Southeast of TAN-TSF, south of McKinley Boulevard, and southwest of the WRRTF

C. Date and time of site's vegetation assessment: June 22, 2005

D. Status of the site (2005): It is a large bladed circle with native grasses throughout and a few forbs and shrubs. There are also patches of bare soil with some struggling halogeton. The two-track road into the site looks great. The drill perimeter has halogeton. The soil is very floury (i.e., silt) and this is possibly the soil problem. The perimeter has mixed wheatgrasses, Indian ricegrass, mustards, winterfat, sagebrush, squirreltail, prickly pear, phlox, and wild onions.

E. Current recommendation (2005): Reseed areas devoid of growth with Planet Junior. This area has not been seeded since 2001; therefore, it is possible that the seed bank is depleted. Test the soil in a few years if there is still no growth in the bare spots. Since this site is within the Sagebrush-Steppe Ecological Reserve (SSER), revegetation sources must be from the SSER: fall planting of seedlings or seeds collected from the SSER. Continue monitoring and managing the vegetation (via the annual assessment) for >5 years and conducting weed control, if necessary, until the site meets 70% cover of the background/native perennial species.

F. Time period that site should be manually weeded or sprayed for weeds: Spring and fall

G. Date of site's weed assessment and/or date scheduled to be sprayed for weeds:
Spring and Fall 2005 and Spring 2006

H. Herbicide used/recommended (if applicable) (2005): Round Up was used (in accordance with EA-CER-021: "…not within 5 ft of a monitoring well").

I. Date scheduled for site seeding or reseeding (unless being compacted and/or paved):
To be determined—within the SSER; possibly in the spring of 2006

J. Site size and dimensions: <0.2 acre (5,024 ft^2 = 40-ft radius)

K. Seed rate and mix used/required: The seed rate used was 15.5 lb per acre. The seed mix used in November 2001 consisted of winterfat (4 lb), Indian ricegrass (2 lb), needle and thread grass (2 lb), bottlebrush squirreltail grass (2 lb), Sodar streambank wheatgrass (2 lb), northern sweetvetch (2 lb), green rabbitbrush (1 lb), and Wyoming big sagebrush (0.5 lb).

L. Fertilizer and amendment rate and type used/recommended (if applicable): To be determined

M. Noted during previous year's vegetation assessments (2004): No gravel is present on these sites (TAN-56, TAN-57, and TAN-58). There is an obvious bladed circle full of halogeton. Some wheatgrasses, winterfat, prickly pear, and rabbitbrush are present. The two-track into the well looks very good. The soil seems to be in good physical condition—no compaction issues. The area just needs some time to establish native plants.

N. Recommendations from previous year's vegetation assessments (2004): Do not add gravel; the road will be impassable in the mud anyway. The native plants are doing well enough to continue management as is. Spray sterilant to control weeds on the gravel road, if necessary. Continue annual vegetation monitoring until the site contains the 70% coverage of native perennials compared to the surrounding vegetation in accordance with the former SWPPP goal adopted as a best-management practice at Miscellaneous Sites Cleanup Project revegetation sites. Determine a path forward after the 2005 vegetation assessment. If no new growth occurs, sample the soil in 2005. The site might need topsoil and should then be reseeded manually during the fall of 2005.

O. Additional information: (2004): Herbicides Escort and Weedar were used (in accordance with EA-CER-021: "…not within 5 ft of a monitoring well"). In late April 2004, the site was visited to assess the weed growth. The site was scheduled for a compacted gravel turnaround well pad and two-track road during the spring or fall of 2004.

Well TAN-58 (TANT-MON-A-058)

A. Site name: **Well TAN-58 (TANT-MON-A-058) outside the facility fence**

B. Site location: Southeast of TAN-TSF and TAN-52 and northeast of the WRRTF

C. Date and time of site's vegetation assessment: June 22, 2005

D. Status of the site (2005): Native grasses, including Indian ricegrass and mixed wheatgrasses, are dispersed equally. There are no huge bare patches, but some halogeton is present. Shrubs and forbs include sagebrush seedlings, Atroplex, and winterfat. The perimeter species include halogeton on the edge only then hopsage and some halogeton.

E. Current recommendation (2005): No action. Since this site is within the Sagebrush-Steppe Ecological Reserve (SSER), revegetation sources must be from the SSER: fall planting of seedlings or seeds collected from the SSER. Continue monitoring and managing the vegetation (via the annual assessment) for >5 years and conducting weed control (i.e., spraying halogeton), if necessary, until the site meets 70% cover of the background/native perennial species.

F. Time period that site should be manually weeded or sprayed for weeds: Spring and fall

G. Date of site's weed assessment and/or date scheduled to be sprayed for weeds:
Spring and Fall 2005 and Spring 2006

H. Herbicide used/recommended (if applicable) (2005): Round Up was used (in accordance with EA-CER-021: "…not within 5 ft of a monitoring well").

I. Date scheduled for site seeding or reseeding (unless being compacted and/or paved): To be determined—within the SSER; possibly in the spring of 2006

J. Site size and dimensions: <0.2 acre (7,850 ft^2 = 50-ft radius)

K. Seed rate and mix used/required: The seed rate was 15.5 lb per acre. The November 2001 wellhead seed mix consisted of winterfat (4 lb), Indian ricegrass (2 lb), needle and thread grass (2 lb), bottlebrush squirreltail grass (2 lb), Sodar streambank wheatgrass (2 lb), northern sweetvetch (2 lb), green rabbitbrush (1 lb), and Wyoming big sagebrush (0.5 lb).

L. Fertilizer and amendment rate and type used/recommended (if applicable): To be determined

M. Noted during previous year's vegetation assessments (2004): This site is similar to TAN-56 and TAN-57. There is a huge bladed area with no gravel. Native plant growth, including sagebrush, is good. There are signs of wildlife use. The north side is great. The southwest side does not look very good, but it should improve with time.

N. Recommendations from previous year's vegetation assessments (2004): Do not add gravel; the road will be impassable in the mud anyway. Native plants are doing well enough to continue management as is. If necessary, spray sterilant to control weeds on the gravel road. Continue annual vegetation monitoring until the site contains the 70% coverage of native perennials compared to the surrounding vegetation in accordance with the former SWPPP goal adopted as a best-management practice at Miscellaneous Sites Cleanup Project revegetation sites. Determine a path forward after the 2005 vegetation assessment. If no new growth occurs, sample the soil in 2005. The site might need topsoil and should then be reseeded manually during the fall of 2005.

O. Additional information (2004): Herbicides Escort and Weedar were used (in accordance with EA-CER-021: "…not within 5 ft of a monitoring well"). The site is scheduled for a compacted gravel turnaround well pad and a two-track road during the spring or fall of 2004.

Initial Engine Test Demolition

A. Site name: **Initial Engine Test (IET) Demolition**

B. Site location: Formerly located at the north end of TAN, approximately 1.4 mi north of TSF and the Taft Boulevard gate inside a fence (28 mi north of the CFA)

C. Date and time of site's vegetation assessment: June 29, 2005

D. Status of site (2005): This is a very large fenced area north of TAN. Large areas of bare ground are present. Crested wheatgrass is the dominant grass and is present in large patches within the fence. Squirreltail is doing well where present. Some shrubs (i.e., saltbushes, winterfat, and sagebrush) are visible. Some mustard and Indian ricegrass are evident. There is a good distribution of woodchips. Soil appears to be very clayey. Halogeton and Russian thistle are abundant. Three Canada thistle rosettes are visible in the southeast corner of the site (approximately 60 ft west of and inside the near entrance gate). The perimeter consists of a lot of crested wheatgrass around the edges with some squirreltail. The entire north end of the site is a crested wheatgrass monoculture with very few forbs.

E. Current recommendation (2005): Follow the November 2003 soil test recommendations. Amend and reseed bare areas during Fall 2006 or Fall 2007, and possibly irrigate to establish plant growth. Continue monitoring and managing the vegetation (via the annual assessment) for >5 years and conducting weed control (i.e., spraying Canada thistle twice per year and spraying halogeton and Russian thistle), as necessary, until the disturbed area meets 70% cover of the background perennial species.

F. Time period that site should be manually weeded or sprayed for weeds: Fall and spring

G. Date of site's weed assessment and/or date scheduled to be sprayed for weeds:
Spring and Fall 2005 and Spring 2006

H. Herbicide used/recommended (if applicable) (2005): Redeem and Escort were used.

I. Date scheduled for site seeding or reseeding (unless being compacted and/or paved):
To be determined—possibly during the fall of 2006

J. Site size and dimensions: 17.5 acres (855 × 890 ft)

K. Seed rate and mix used/required: The seed rate used in 2001 was 21 lb per acre. The seed mix used in 2001 consisted of winterfat (4 lb), shadscale (4 lb), spiny hopsage (4 lb), green rabbitbrush (2 lb), Nezpar Indian ricegrass (2 lb), bottlebrush squirreltail (2 lb), western wheatgrass (2 lb), and Sodar streambank wheatgrass (1 lb). In 2001, four-wing salt brush also was used.

L. Amount and type of fertilizer and other amendments (if applicable): To be determined

M. Noted during the previous year's vegetation assessments (2004): The site was not accessible on June 22, 2004.

N. Recommendations from previous year's vegetation assessments (2004): The site was not accessible during the summer of 2004. If no new growth is observed during the 2005 vegetation assessment, follow the recommendations from the Fall 2003 soil sampling laboratory results. Continue annual vegetation monitoring until the site contains the 70% coverage of native perennials compared to the surrounding vegetation in accordance with the former SWPPP goal adopted as a best-management practice at Miscellaneous Sites Cleanup Project revegetation sites.

O. Additional information (2004): Herbicides Escort and Weedar were used.

Army Reentry Vehicle Facility Site Bunker Demolition (formerly ARVFS-01 and ARVFS-02)

A. Site name: **Army Reentry Vehicle Facility Site (ARVFS) Bunker Demolition (formerly ARVFS-01 and ARVFS-02)**

B. Site location: About 9 to 10 mi northeast of the Idaho Nuclear Technology and Engineering Center (INTEC), about 1 mi south of Mile Marker 11 on Lincoln Boulevard, and 1 mi east of Lincoln Boulevard

C. Date and time of site's vegetation assessment: June 23, 2005

D. Status of site (2005): There is a large area with good plant coverage. There are numerous Sandberg's bluegrass seedlings from a wet spring. In addition, Indian ricegrass, desert alyssum, and squirreltail are present. Good shrub and forb variation, such as globemallow and rabbitbrush, are present. Some halogeton is present. There are still large patches of cheatgrass—more cheatgrass than most revegetation areas. There is standing water/ponding here and there from recent rains. There are still several small piles of unspread woodchips that are visible onsite. The perimeter along the road includes a lot of squirreltail. The other site perimeters include rabbitbrush, mixed wheatgrasses, crested wheatgrass, Indian ricegrass, and some halogeton. On November 16, 2005, the Planet Junior was used to reseed four large, bare areas, approximately 50 ft long by 25 ft wide (8–10 drill lines) in each area. In addition, a shovel was used to dig and cover approximately 1-in. holes to reseed every 1–2 ft throughout the site to reseed within the halogeton monocultures and other bare areas.

E. Current recommendation (2005): Manually spot spray for halogeton and Russian thistle. Follow recommendations from the Fall 2003 soil test; amend. Reseed bare patches with Planet Junior. Spread thick woodchip piles to allow plants to grow. Continue monitoring and managing the vegetation (via the annual assessment) for 2–5 years and conducting weed control, as necessary, until the disturbed area meets 70% cover of the background/native perennial species.

F. Time period that site should be manually weeded or sprayed for weeds: Fall and spring

G. Date of site's weed assessment and/or date scheduled to be sprayed for weeds: Spring and Fall 2005 and Spring 2006

H. Herbicide used/recommended (if applicable) (2005): Redeem and Escort were used.

I. Date scheduled for site seeding or reseeding (unless being compacted and/or paved): To be determined

J. Site size and dimensions: 2.1 acres revegetation (260 × 350 ft)

K. Seed rate and mix used/required: The seed rate used in 2001 and 2005 was 13 lb per acre. The 2001 seed mix consisted of Critana thickspike wheatgrass (3 lb), Sodar streambank wheatgrass (3 lb), winterfat (2 lb), Nezpar Indian ricegrass (4 lb), and Wyoming big sagebrush (1 lb).

L. Amount and type of fertilizer and other amendments (if applicable): Unknown

M. Noted during the previous vegetation assessments (2004): Large patches of halogeton are located sporadically around the site. The gravel road into the area was never revegetated; however, some native grasses are starting to colonize the graveled area. There is great native plant diversity. Various forbs that were not in the original seed mix for the area are now present. Shrub presence includes sagebrush. Vehicle traffic is still evident despite the Jersey barrier at the entrance to the road.

N. Recommendation from previous vegetation assessments (2004): Spray halogeton monocultures, and reseed either by hand or by using the Planet Junior during the fall of 2004. In addition, reseed some of the bare areas during the fall of 2004 or 2005. If no new growth is observed during the 2005 vegetation assessment, follow the recommendations from the Fall 2003 soil sampling laboratory results. Control weeds, as necessary. Continue annual vegetation monitoring until the site contains the 70% coverage of native perennials compared to the surrounding vegetation in

accordance with the former SWPPP goal adopted as a best-management practice at Miscellaneous Sites Cleanup Project revegetation sites.

O. Additional information (2004): Escort and Weedar were used.

Lincoln Boulevard Borrow Source site (for CFA-08)

A. Site name: **Lincoln Boulevard Borrow Source site (for CFA-08)**

B. Site location: About 9 to 10 mi northeast of INTEC, about 1 mi south of Mile Marker 11 on Lincoln Boulevard, and west of Lincoln Boulevard

C. Date and time of site's vegetation assessment: June 23, 2005

D. Status of site (2005): The extreme north side of the site looks great with a good variety of native species. The native grasses are doing fairly well although they are somewhat patchy. There are lots of tiny grasses and this year's seedlings, including needle and thread grass and Indian ricegrass. Globemallow, mustard, and some crested wheatgrass also are present. No shrubs are present. No topsoil is present and many areas are void of vegetation. There is minimal weed establishment, only halogeton and some Russian thistle. The perimeter is crested wheatgrass. The site is mostly crested wheatgrass and native wheatgrasses. On the southside, there are small patches of halogeton and Russian thistle on the edge of the slope. There are no shrubs. Mustards, mixed wheatgrasses, crested wheatgrass, needle and thread grass, and Indian ricegrass are present. The perimeter has cheatgrass, crested wheatgrass, flax, and prickly pear. There are Russian thistle and halogeton on the western perimeter and rabbitbrush on the eastern perimeter.

E. Current recommendation (2005): Northside—continue monitoring and managing the vegetation (via the annual assessment) for >5 years and conducting weed control (i.e., spot spraying halogeton and Russian thistle, especially on the eastside), as necessary, until the disturbed area meets 70% cover of the background/native perennial species. Southside—continue monitoring and managing the vegetation (via the annual assessment) for >5 years and conducting weed control, if necessary, until the disturbed area meets 70% cover of the background/native perennial species. Possibly reseed during Fall 2006 or 2007 using the Truax drill/equivalent, if appropriate.

F. Time period that site should be manually weeded or sprayed for weeds: Spring and fall

G. Date of site's weed assessment and/or date scheduled to be sprayed for weeds: Spring and Fall 2005 and Spring 2006

H. Herbicide used/recommended (if applicable) (2005): Redeem and Escort were used.

I. Date scheduled for site seeding or reseeding (unless being compacted and/or paved): To be determined

J. Site size and dimensions: Total = ~6 acres. (The south side is ~160 ft × ~400 ft = ~64,000 ft^2 = ~1.5 acres, and the north side is ~240 ft × ~800 ft = ~192,000 ft^2 = ~4.4 acres.)

K. Seed rate and mix used/required: The seed rate used was 10.25 lb per acre. The mix consisted of Secar bluebrush wheatgrass (3 lb), Critana thickspike wheatgrass (2 lb), northern sweetvetch (1.5 lb), Sodar streambank wheatgrass (3 lb), green rabbitbrush (0.25 lb), and Wyoming big sagebrush (0.5 lb).

L. Amount and type of fertilizer and other amendments (if applicable): Unknown

M. Noted during previous vegetation assessments (2004): The area should be closed to all traffic. Test soil during the fall of 2004, and possibly start over in the fall of 2004 or 2005 if the site produces inadequate vegetation during the spring of 2005. During the fall of 2004, add revegetation area signs and a two-strand wire fence on the north and south sides of the site along the entry road to eliminate vehicle traffic. Control weeds, as necessary. Continue annual vegetation monitoring until the site contains the 70% coverage of native perennials compared to the surrounding vegetation in accordance with the former SWPPP goal adopted as a best-management practice at Miscellaneous Sites Cleanup Project revegetation sites.

N. Recommendation from previous vegetation assessments (2004): The site is full of halogeton and Russian thistle. Occasional grasses (<10) and random other forbs (<5) are present on the north side of the site. The south side looks better with some crested wheatgrass, thickspike wheatgrass, and western wheatgrass. The west slope is slumping badly, because there is no stabilization.

Four sets of tire tracks are present up and down the revegetation area. What is the issue here? Topsoil? Drill problem? Organic material?

O. Additional information: (2004): Escort and Weedar were used.

Fire Station 2 Training Facilities (Structures)

Fire Station II sites:

A. Site name: **Fire Station 2 Training Facilities (Structures)**

B. Site location: Along Lincoln Boulevard, approximately 3 mi north of INTEC

C. Date and time of site's vegetation assessment: June 23, 2005

D. Status of site (2005): The area is slowly giving way to crested wheatgrass. The surrounding area is full of mustards, sweetclover, gray rabbitbrush, and flax. There is a large halogeton patch in the center. There is still some ponding/saturated soil from recent rains. Cheatgrass, mustards, crested wheatgrass, and desert alyssum are present. Halogeton is present in the center of the site. Grey rabbitbrush, sagebrush, sweetclover, flax, and squirreltail are present near the western fence. The perimeter consists of crested wheatgrass only. There is still a patch of field bindweed on the southwest edge of this site. The Planet Junior was used to reseed bare areas, approximately 50 ft long by 20 ft wide (5 drill lines each) on the south and east sides of the site. A shovel was used to dig and cover approximately 1-in. holes to reseed every 1–2 ft from the center of the site to the west fence, where possible, because the soil was very compact in some areas.

E. Current recommendation (2005): Control noxious weeds (i.e., field bindweed patch near road) and halogeton. Continue monitoring and managing the vegetation (via the annual assessment) for 2–5 years and conducting weed control, at least twice per year as necessary, until the disturbed area meets 70% cover of the background/native perennial species.

F. Time period that site should be manually weeded or sprayed for weeds: Spring and fall

G. Date of site's weed assessment and/or date scheduled to be sprayed for weeds: Spring and Fall 2005 and Spring 2006

H. Herbicide used/recommended (if applicable) (2005): Curtail and Escort were used. (2004): Weedar and Redeem were used.

I. Date scheduled for site seeding or reseeding (unless being compacted and/or paved): To be determined

J. Site size and dimensions: 2 acres (160 × 430 ft)

K. Seed rate and mix used/required: The seed rate was 13 lb per acre. The seed mix consisted of Critana thickspike wheatgrass (3 lb), Sodar streambank wheatgrass (3 lb), winterfat (2 lb), Nezpar Indian ricegrass (4 lb), and Wyoming big sagebrush (1 lb).

L. Amount and type of fertilizer and other amendments (if applicable): The site was fertilized previously (type unknown). A bushel of rice hulls per acre was spread with the seed. Wood chips were then spread evenly over the area.

M. Noted during previous vegetation assessments (2004): The area closest to Lincoln Boulevard is almost solid halogeton with a few crested wheatgrass plants. The entire area is surrounded by crested wheatgrass. The upper site is very compacted. A couple of patches of field bindweed are growing on the south end of the site.

N. Recommendations from previous vegetation assessments (2004): Continue annual vegetation monitoring until the site contains 70% coverage of native perennials compared to the surrounding vegetation. Control noxious weeds (e.g., field bindweed), as necessary. Determine the status of the well on the north end of the site. This site might need to be ripped/disked and reseeded after well usage is completed. Re-fence (two-strand wire) the north, west (near the well), and south sides of the site. Add revegetation area signs (again) to the area that has been driven around/through, especially adjacent to Lincoln Boulevard to eliminate vehicle traffic.

O. Additional information (April 2004): The site was visited to assess weed growth.

Test Reactor Area North Storage Area (Test Reactor Area Operable Unit 10-06 Radiological Soil Contamination)

A. Site name: **Test Reactor Area (TRA) North Storage Area (TRA Operable Unit [OU] 10-06 Radiological Soil Contamination)**

B. Site location: North of the TRA perimeter fence

C. Date and time of site's vegetation assessment: June 23, 2005

D. Status of the site (2005): There are some nice areas of native grasses, including squirreltail, Sandberg's bluegrass, blue bunch wheatgrass, and thickspike and streambank wheatgrasses. There are very few scattered shrubs (such as horsebrush, grey rabbitbrush, and green rabbitbrush). There are patches of cheatgrass and kochia. Monocultures of desert alyssum and blue mustard are present. Mustards (yellow and blue), crested wheatgrass, and a few ricegrasses also are visible. There is ponded water on the road north of the site from recent rain. Northeast of the site, there is Canada thistle, which has not yet flowered, in streambed and on banks. The perimeter contains cheatgrass, kochia, and various wheatgrasses.

E. Current recommendation (2005): Add seed to bare areas and those dominated by annuals using the Truax drill/equivalent, Planet Junior and/or manually during Fall 2006 or 2007. Continue monitoring and managing the vegetation (via the annual assessment) 2–5 years and conducting weed control (especially for Canada thistle located northeast of the site in the ditch), twice per year, until the disturbed area meets 70% cover of the background/native perennial species.

F. Time period that site should be manually weeded or sprayed for weeds: Fall and spring

G. Date of site's weed assessment and/or date scheduled to be sprayed for weeds: Spring and Fall 2005 and Spring 2006

H. Herbicide used/recommended (if applicable) (2005): Redeem and Escort were used.

I. Date scheduled for site seeding or reseeding (unless being compacted and/or paved): To be determined—possibly during Fall 2006

J. Site size and dimensions: ~5 acres (~500 × ~450 ft)

K. Seed rate and mix used/required: The seed rate was 12 lb per acre. The seed mix consisted of Critana thickspike wheatgrass (5 lb), Secar bluebunch wheatgrass (5 lb), northern sweetvetch (0.5 lb), silverleaf lupine (0.5 lb), Wyoming big sagebrush (0.5 lb), and green rabbitbrush (0.5 lb).

L. Fertilizer and amendments rate and type used (if applicable): NA

M. Noted during the previous vegetation assessments (2004): Large patches of different native bunch grasses, rabbitbrush, and horsebrush are present. There are also patches of desert alyssum, kochia, Russian thistle, and small patches of cheatgrass. A few forbs were seen.

N. Recommendations from previous vegetation assessments (2004): Continue annual vegetation monitoring for another year, since the site almost contains the 70% coverage of native perennials compared to the surrounding vegetation in accordance with the former SWPPP goal adopted as a best-management practice at Miscellaneous Sites Cleanup Project revegetation sites. Monitor the noxious weeds in the drainage ditch northeast of the site. Determine a path forward after the 2005 vegetation assessment.

O. Additional information (2004): Herbicides Weedar and Redeem were used. (June 2004): The drainage ditch running northeast out of TRA is choked with Canada thistle and possibly bull thistle.

Test Reactor Area Sewage Leach Pond Cap (Operable Unit 2-13 Remedial Action)

A. Site name: **TRA Sewage Leach Pond Cap (OU 2-13 Remedial Action)**

B. Site location: East of the TRA perimeter fence

C. Date and time of site's vegetation assessment: June 23, 2005

D. Status of the site (2005): Grass cover, mostly crested wheatgrass, is showing improvement over the last year. Huge kochia and cheatgrass patches and some halogeton are still present. Kochia has been sprayed. Various mustards, globemallow, sagebrush seedlings, mixed wheatgrasses, and desert alyssum also are present. The perimeter contains grey and green rabbitbrush, mixed wheatgrasses, Indian ricegrass, squirreltail, and crested wheatgrass.

E. Current recommendation (2005): No action. Continue monitoring and managing the vegetation (via the annual assessment) for 2–5 years and conducting weed control (i.e., spraying kochia), if necessary, until the disturbed area meets 70% cover of the background/native perennial species.

F. Time period that site should be manually weeded or sprayed for weeds: Fall and spring

G. Date of site's weed assessment and/or date scheduled to be sprayed for weeds: Spring and Fall 2005 and Spring 2006

H. Herbicide used/recommended (if applicable) (2005): Redeem and Escort were used.

I. Date scheduled for site seeding or reseeding (unless being compacted and/or paved): To be determined

J. Site size and dimensions: ~5 acres (~500 × ~450 ft)

K. Seed rate and mix used/required: The seed rate was 12 lb per acre. The seed mix consisted of Critana thickspike wheatgrass (5 lb), Secar bluebunch wheatgrass (5 lb), northern sweetvetch (0.5 lb), silverleaf lupine (0.5 lb), Wyoming big sagebrush (0.5 lb), and green rabbitbrush (0.5 lb).

L. Fertilizer and amendments rate and type used (if applicable): 50 lb of ammonium phosphate per acre, 1 bushel of rice hulls per acre, and wood chips spread evenly over the area

M. Noted during the previous vegetation assessment (2004): A large area with good grass variety is present. However, the grass is very patchy with poor overall coverage. Ample organic matter exists. The site is full of kochia, some halogeton, and Russian thistle. Except for mustards, few forbs are present.

N. Recommendations from previous vegetation assessments (2004): Continue annual vegetation monitoring until the site contains 70% coverage of native perennials compared to the surrounding vegetation. A broadleaf spray could be applied, but it would sacrifice any forbs that might be there. Determine a path forward after the 2005 vegetation assessment.

O. Additional information (2004): Herbicides Escort and Redeem were used.

CFA-691 Sewage Treatment Plant Demolition (CFA-08)

A. Site name: **CFA-691 Sewage Treatment Plant Demolition (CFA-08)**

B. Site location: Along the eastern edge of CFA, south of Ohio Street, and east of Quebec Avenue

C. Date and time of site's vegetation assessment: June 22, 2005

D. Status of the site (2005): Southside only—there is one secluded strip of grasses, including Indian ricegrass and mixed wheatgrasses, and a few rabbitbrush plants. The southside of the site still looks terrible; the area is devoid of plant growth with the exception of kochia, Russian thistle, and cheatgrass. The perimeter (on the south and east sides) is dominated by rabbitbrush, crested wheatgrass, and sagebrush. On October 27, 2005, composite soil samples from two areas between approximately 0 and 8 in. below grade were collected using a shovel. The site was too gravelly to use the soil probe.

E. Current recommendation (2005): Southside only—start over, test the soil, follow the amendment recommendations, plant with native species, and irrigate (water truck option). This area might require more fencing to keep vehicles out. (There were numerous tire tracks on the north end of the revegetation area.) Continue monitoring and managing the vegetation (via the annual assessment) for >5 years and conducting weed control, if necessary, until the site meets 70% cover of the background/native perennial species. Get aerial photo/old maps of the site and information regarding how much soil was removed and replaced, if possible. The soil sampling results indicate that the southside of the site has very high pH (8.5), high magnesium (Mg^{2+}) and very low sulfate (SO_4^{2-}) and nitrate (NO_3^-). Since this site is very calcareous, it would benefit from the addition of elemental sulfur or acid-forming fertilizers. The site should be reseeded using the Truax drill/equivalent during 2006 or 2007, preferably after consultation with the remediation contractor.

F. Time period that site should be manually weeded or sprayed for weeds: Fall and spring

G. Date of site's weed assessment and/or date scheduled to be sprayed for weeds: Spring and Fall 2005 and Spring 2006

H. Herbicide used/recommended (if applicable): No herbicides were used.

I. Date scheduled for site seeding or reseeding (unless being compacted and/or paved): To be determined—possibly Fall 2006

J. Site size and dimensions: ~17.5 acres (790 × 980 ft)—whole site; ~4 acres (300 × 600 ft)—problem area

K. Seed rate and mix used/required: In 2002, the seed rate and mix used were Critana thickspike wheatgrass (3 lb), Sodar streambank wheatgrass (3 lb), Rimrock Indian ricegrass (4 lb), winterfat (2 lb), and Wyoming big sagebrush (1 lb).

L. Fertilizer and amendment rate and type used/recommended (if applicable): To be determined

M. Noted during previous vegetation assessments (2004): The west side of the site looks fantastic with great native grass growth. The east side is almost entirely Russian thistle with very few grasses.

N. Recommendations from previous vegetation assessments (2004): Possibly test the soil on the east side of the site during the fall of 2004 or spring of 2005. Control weeds, as necessary. Continue annual vegetation monitoring until the site contains 70% coverage of native perennials compared to the surrounding vegetation. Determine a path forward after the 2005 vegetation assessment. Possibly reseed in the fall of 2005.

O. Additional information (April 2004): The site was assessed for weed growth.

Central Facilities Area Tank Farm and Loading Rack (Waste Area Group 4 Removal Action)

A. Site name: **CFA Tank Farm and Loading Rack (WAG 4 Removal Action)**

B. Site location: Northeast of CFA on the northeast and southwest sides of Quebec Avenue

C. Date and time of site's vegetation assessment: June 22, 2005

D. Status of the site (2005): Southside—area is full of grass (mostly crested wheatgrass), ample green rabbitbrush, and sagebrush. Desert alyssum is present in bare areas; it appears to be out-competing the Russian thistle. Some flax and winterfat also are present. Some cheatgrass is present. The perimeter is mostly crested wheatgrass with sagebrush. Northside—the area is dominated by crested wheatgrass with other native grasses and some sagebrush seedlings, lupine, rabbitbrush, and winterfat. Some Indian ricegrass, winterfat, Russian thistle, desert alyssum, and mustards are present. There are also patches of cheatgrass. The perimeter has rabbitbrush, crested wheatgrass, and some cheatgrass.

E. Current recommendation (2005): Southside—cancel the annual vegetation assessment since the site has met 70% cover of the background/native perennial species; continue weed control, since Canada thistle was found at this site in 2002. Northside—cancel the annual vegetation assessment and weed control, since the site has met the 70% cover of the background/native perennial species.

F. Time period that site should be manually weeded or sprayed for weeds: Spring and fall

G. Date of site's weed assessment and/or date scheduled to be sprayed for weeds: Spring and Fall 2005 and Spring 2006—northside only

H. Herbicide used/recommended (if applicable): To be determined

I. Date scheduled for site seeding or reseeding (unless being compacted and/or paved): To be determined

J. Site size and dimensions: ~0.75 acre

K. Seed rate and mix used/required: The seed rate was 13 lb per acre. The seed mix consisted of Critana thickspike wheatgrass (3 lb), Sodar streambank wheatgrass (3 lb), winterfat (2 lb), Nezpar Indian ricegrass (4 lb), and Wyoming big sagebrush (1 lb).

L. Fertilizer and amendment rate and type used/recommended (if applicable): 50 lb of ammonium phosphate per acre was spread with an all-terrain vehicle; 1 bushel of rice hulls per acre and wood chips were spread evenly over the area.

M. Noted during previous year's vegetation assessments (2004): The south side of the road has a good composition of native plants. Sagebrush is present with no obvious seed source, so it might have grown from the seed mix. On the north side of the road, some Russian thistle, desert alyssum, and kochia are present, as is a thriving crested wheatgrass monoculture.

N. Recommendations from previous year's vegetation assessments (2004): Continue annual vegetation monitoring until the site contains 70% coverage of native perennials compared to the surrounding vegetation. Control noxious weeds, as necessary. Canada thistle has been found on the south end of the west side in previous years. Determine a path forward after the 2005 vegetation assessment.

O. Additional information and current recommendation (April 2004): The site was assessed for weed growth.

CFA-678/639 Bunker Building Demolition

A. Site name: **CFA-678/639 Bunker Building Demolition**

B. Site location: Formerly located (contiguous sites) on the southeast side of CFA, just west of Quebec Avenue

C. Date and time of site's vegetation assessment: June 22, 2005

D. Status of the site (2005): There is compacted soil with very little native plant growth in the center. Kochia and Russian thistle are present. There is good forb growth and some grasses around the perimeter. The perimeter has crested wheatgrass, Indian ricegrass, rabbitbrush, Cryptantha species, halogeton, and kochia. On October 27, 2005, composite soil samples were collected from three areas between approximately 0 and 8 in. below grade using a shovel. The site was too compacted to use the soil probe.

E. Current recommendation (2005): Start over, test the soil, and follow recommendations (i.e., amend, reseed, and irrigate). Reseed manually or carefully with a drill (i.e., Planet Junior and/or Truax) to native species (i.e., squirreltail). Irrigate (i.e., with water truck). Unless there is a wet spring, it might be helpful to water the area for a month in the spring to establish plants. Continue monitoring and managing vegetation (via the annual assessment) for > 5 years and conducting weed control (i.e., spraying the kochia, Russian thistle, and halogeton), as necessary, until the site meets 70% cover of the background/native perennial species. Analytical results indicate that the soil has a very high pH (8.5) and very low nitrate (NO_3^-), as well as low sodium (Na), potassium (K), sulfate (SO_4^{2-}), zinc (Zn), and manganese (Mn). Since this site is very calcareous, it would benefit from the addition of elemental sulfur or acid-forming fertilizers.

F. Time period that site should be manually weeded or sprayed for weeds: Spring and fall

G. Date of site's weed assessment and/or date scheduled to be sprayed for weeds: Spring and Fall 2005 and Spring 2006

H. Herbicide used/recommended (if applicable): To be determined

I. Date scheduled for site seeding or reseeding (unless being compacted and/or paved): To be determined—possibly during Fall 2006

J. Site size and dimensions: 1.8 acres (220 × 360 ft)

K. Seed rate and mix used/required: In 2002, the seed rate was 13 lb per acre. The mix consisted of Critana thickspike wheatgrass (3 lb), Sodar streambank wheatgrass (3 lb), Rimrock Indian ricegrass (4 lb), winterfat (2 lb), and Wyoming big sagebrush (1 lb). In 2001, the seed rate was 13 lb per acre, and the seed mix consisted of Critana thickspike wheatgrass (3 lb), Sodar streambank wheatgrass (3 lb), winterfat (2 lb), Nezpar Indian ricegrass (4 lb), and Wyoming big sagebrush (1 lb).

L. Amount and type of fertilizer and other amendments (if applicable): Fertilizer (type unknown) was used on this site in 2000. One bushel of rice hulls per acre with the seed also was applied. Wood chips were then spread evenly over the area.

M. Noted during the previous vegetation assessments (2004): The edges of this area look great. Numerous native forbs, including desert cryptantha, that were not listed in the original seed mix are present. The middle needs time, but grasses are present. Russian thistle, kochia, and halogeton are prevalent.

N. Recommendations from previous vegetation assessments (2004): Continue annual vegetation monitoring until the site contains 70% coverage of native perennials compared to the surrounding vegetation. Control noxious weeds, as necessary. Determine a path forward after the 2005 vegetation assessment, possibly reseeding the center of the site manually.

O. Additional information (April 2004): The site was assessed for weed growth.

Waste Area Group 4 Monitoring Well CFA-MON-A-001

A. Site name: **Waste Area Group (WAG) 4 Monitoring Well CFA-MON-A-001**

B. Site location: Southeast of CFA and south of the CFA-04 pond

C. Date and time of site's vegetation assessment: June 22, 2005

D. Status of the site (2005): There is a large, extensive gravel pad, which supports only extensive halogeton growth, surrounding the wellhead. Some pepperweed is present. There are two squirreltail plants and one Indian ricegrass plant. The perimeter/surrounding the native area looks great with good species cover and diversity (such as ryegrass, squirreltail, mustards, rabbitbrush, and sagebrush). On November 10, 2005, the large bare area, approximately 80 ft long by 15 ft wide (10 drill lines), on the southern perimeter of the gravel pad were reseeded using the Planet Junior.

E. Current recommendation (2005): Re-compact the gravel pad. Reseed the bare areas on the southern perimeter during Fall 2005 or 2006. Continue monitoring and managing the vegetation (via the annual assessment) for 2–5 years and conducting weed control (i.e., spraying the halogeton), as necessary, until the disturbed area meets 70% cover of the background/native perennial species.

F. Time period that site should be manually weeded or sprayed for weeds: Fall and spring

G. Date of site's weed assessment and/or date scheduled to be sprayed for weeds: Spring and Fall 2005 and Spring 2006

H. Herbicide used/recommended (if applicable) (2005): Round Up was used (in accordance with EA-CER-021: "…not within 5 ft of a monitoring well").

I. Date scheduled for site seeding or reseeding (unless being compacted and/or paved): To be determined

J. Site size and dimensions: 1,200 ft^2 (~20 × ~60 ft), south and adjacent to the 300-ft^2 turnout

K. Seed rate and mix used/required: The seed rate used was 13 lb per acre. The seed mix consisted of Critana thickspike wheatgrass (3 lb), Sodar streambank wheatgrass (3 lb), winterfat (2 lb), Nezpar Indian ricegrass (4 lb), and Wyoming big sagebrush (1 lb).

L. Fertilizer and amendment rate and type used/recommended (if applicable): One bushel of rice hulls per acre.

M. Noted during previous vegetation assessments (2004): The area around the well has been graveled but not compacted. There is halogeton in the gravel. The surrounding exposed soil area looks okay with various grasses and rabbitbrush coming back.

N. Recommendations from previous vegetation assessments (2004): Continue annual vegetation monitoring for another year, since the site almost contains the 70% coverage of native perennials compared to the surrounding vegetation in accordance with the former SWPPP goal adopted as a best-management practice at Miscellaneous Sites Cleanup Project revegetation sites. Control weeds (i.e., halogeton) in the gravel, as needed, giving the vegetation on the edges and around the wellhead a wide berth. Determine a path forward after the 2005 vegetation assessment.

O. Additional information (2004): Weedar and Redeem were used (in accordance with EA-CER-021: "…not within 5 ft of a monitoring well").

Waste Area Group 4 Monitoring Well CFA-MON-A-002

A. Site name: **WAG 4 Monitoring Well CFA-MON-A-002**

B. Site location: Southeast of CFA, east of CFA-MON-A-001

C. Date and time of site's vegetation assessment: June 22, 2005

D. Status of the site (2005): The status of the site is the same as Well CFA-MON-A-001, except the weeds include extensive amounts of both halogeton and kochia. There is one squirreltail plant at the wellhead. The perimeter looks great with ryegrass, squirreltail, mustards, rabbitbrush, sagebrush, and some pepperweed. On November 10, 2005, the bare areas, approximately 50 ft long by 10 ft wide (~10 drill lines) on the northwest, southwest and southeast perimeters of the gravel pad were reseeded using the Planet Junior. In addition, a shovel was used to dig and cover approximately 1-in. holes every 1–2 ft to reseed the southwest side of the site that was too gravelly, bumpy, or compact.

E. Current recommendation: Re-compact the gravel pad. Reseed the bare areas on the site's perimeter during Fall 2005 or 2006. Continue monitoring and managing the vegetation (via the annual assessment) for 2–5 years and conducting weed control (i.e., spraying the halogeton and kochia), as necessary, until the disturbed area meets 70% cover of the background/native perennial species. In addition, control the patch of Canada thistle on the road between Wells CFA-MON-A-002 and CFA-MON-A-003.

F. Time period that site should be manually weeded or sprayed for weeds: Fall and spring

G. Date of site's weed assessment and/or date scheduled to be sprayed for weeds: June 24, 2004; possibly the fall of 2004; and the spring of 2005

H. Herbicide used/recommended (if applicable) (2005): Round Up was used (in accordance with EA-CER-021: "…not within 5 ft of a monitoring well").

I. Date scheduled for site seeding or reseeding (unless being compacted and/or paved): To be determined

J. Site size and dimensions: 225 ft^2 (15 × 15 ft)

K. Seed rate and mix used/required: The seed rate used was 13 lb per acre. The seed mix consisted of Critana thickspike wheatgrass (3 lb), Sodar streambank wheatgrass (3 lb), winterfat (2 lb), Nezpar Indian ricegrass (4 lb), and Wyoming big sagebrush (1 lb).

L. Fertilizer and amendment rate and type used/recommended (if applicable): To be determined

M. Noted during previous year's vegetation assessment (2004): The area around the well has been graveled but not compacted. There is halogeton in the gravel. The surrounding exposed soil area looks okay with various grasses and rabbitbrush coming back.

N. Recommendations from previous year's vegetation assessment (2004): Continue annual vegetation monitoring for another year, since the site almost contains the 70% coverage of native perennials compared to the surrounding vegetation in accordance with the former SWPPP goal adopted as a best-management practice at Miscellaneous Sites Cleanup Project revegetation sites. Control the noxious weeds (i.e., Canada thistle) in the road between this well and Well CFA-MON-A-003. Control the weeds (i.e., halogeton) in the gravel, as necessary, giving the vegetation on the edges and around the wellhead a wide berth. Determine a path forward after the 2005 vegetation assessment.

O. Additional information (2004): Weedar and Redeem were used (in accordance with EA-CER-021: "…not within 5 ft of a monitoring well").

Waste Area Group 4 Monitoring Well CFA-MON-A-003

A. Site name: **WAG 4 Monitoring Well CFA-MON-A-003**

B. Site location: Southeast of CFA and east of CFA-MON-A-002

C. Date and time of site's vegetation assessment: June 22, 2005

D. Status of the site (2005): The status of the site is similar to Well CFA-MON-A-001 with a large gravel pad that contains various weeds. There is better vegetation cover than previous Wells CFA-MON-A-001 and CFA-MON-A-002. Some patches of kochia and halogeton are present. Some exploding mushrooms also are present. There is one patch of crested wheatgrass. The perimeter is in good to great condition and has good cover and species, including lots of squirreltail and wheatgrasses. On November 10, 2005, the bare areas, approximately 50 ft long by 10 ft wide (~10 drill lines) on the south-central perimeter of the gravel pad were reseeded using the Planet Junior. In addition, a shovel was used to dig and cover approximately 1-in. holes every 12 ft to reseed the north and southwest sides of the site that were too gravelly, bumpy, or compact to use the Planet Junior.

E. Current recommendation (2005): Re-compact the gravel pad. Reseed the bare areas on the site's perimeter during Fall 2005 or 2006. (There are sunken areas on the south side from heavy vehicle tires turning around the wellhead in the gravel.) Continue monitoring and managing the vegetation (via the annual assessment) for 2–5 years and conducting weed control (i.e., spraying the halogeton and kochia), as necessary, until the disturbed area meets 70% cover of the background/native perennial species. In addition, control the patch of Canada thistle on the road between Wells CFA-MON-A-002 and CFA-MON-A-003.

F. Time period that site should be manually weeded or sprayed for weeds: Fall and spring

G. Date of site's weed assessment and/or date scheduled to be sprayed for weeds: Spring and Fall 2005 and Spring 2006

H. Herbicide used/recommended (if applicable) (2005): Round Up was used (in accordance with EA-CER-021: "…not within 5 ft of a monitoring well").

I. Date scheduled for site seeding or reseeding (unless being compacted and/or paved): To be determined

J. Site size and dimensions: 225 ft^2 (15 × 15 ft)

K. Seed rate and mix used/required: The seed rate used was 13 lb per acre. The seed mix consisted of Critana thickspike wheatgrass (3 lb), Sodar streambank wheatgrass (3 lb), winterfat (2 lb), Nezpar Indian ricegrass (4 lb), and Wyoming big sagebrush (1 lb).

L. Fertilizer and amendment rate and type used/recommended (if applicable): To be determined

M. Noted during previous vegetation assessments (2004): The area around the well has been graveled but not compacted. There is halogeton in the gravel. The surrounding exposed soil area looks okay with various grasses and rabbitbrush coming back.

N. Recommendations from previous vegetation assessments (2004): Continue annual vegetation monitoring for another year, since the site almost contains the 70% coverage of native perennials compared to the surrounding vegetation in accordance with the former SWPPP goal adopted as a best-management practice at Miscellaneous Sites Cleanup Project revegetation sites. Control the noxious weeds (i.e., Canada thistle) in the road between this well and Well CFA-MON-A-002. Control the weeds (i.e., halogeton) in the gravel, as necessary, giving the vegetation on the edges and around the wellhead a wide berth. Determine a path forward after the 2005 vegetation assessment.

O. Additional information (2004): Herbicides Weedar and Redeem were used (in accordance with EA-CER-021: "…not within 5 ft of a monitoring well").

Waste Area Group 4 Remedial Investigation/Feasibility Study CFA-04 Pond Remediation

A. Site name: **WAG 4 Remedial Investigation/Feasibility Study (RI/FS) CFA-04 Pond Remediation**

B. Site location: The pond was located south of CFA and south of Building CFA-674. The trenches were located west of the CFA-04 pond.

C. Date and time of site's vegetation assessment: June 22, 2005

D. Status of the site (2005): All species of grass in the original seed mix are present in the revegetation area plus some of the forbs (i.e., northern sweetvetch and orange globemallow). The side slopes are lacking in cover as well as the top of the berm. Large patches of Russian thistle and halogeton are present. Kochia is present at the site entrance and is patchy throughout the site. Mustard, mixed wheatgrasses, sweetclover, and squirreltail also are present. Some crested wheatgrass is intermixed with the above species. The perimeter/surrounding native area has some crested wheatgrass, cheatgrass, kochia, mustards, and pepperweed.

E. Current recommendation (2005): No action. Continue monitoring and managing the vegetation (via the annual assessment) for 2–5 years and conducting weed control, if necessary, for a few more years until the disturbed area meets 70% cover of the background/native perennial species.

F. Time period that site should be manually weeded or sprayed for weeds: Spring and fall

G. Date of site's weed assessment and/or date scheduled to be sprayed for weeds:
Spring and Fall 2005 and Spring 2006

H. Herbicide used/recommended (if applicable) (2005): Round Up was used.

I. Date scheduled for site seeding or reseeding (unless being compacted and/or paved):
To be determined

J. Site size and dimensions: 9 acres (450 × 875 ft)

K. Seed rate and mix used/required: The seed rate used in November 2003 was 13 lb per acre. The seed mix consisted of Secar bluebunch wheatgrass (2 lb), Critana thickspike wheatgrass (2 lb), northern sweetvetch (1 lb), Sodar streambank wheatgrass (2 lb), Sandburg's bluegrass (4 lb), and scarlet globemallow (2 lb).

L. Fertilizer and amendment rate and type used/recommended (if applicable): To be determined; an unknown amount of fertilizer was used prior to seeding in accordance with the rate determined by the soil analysis. Wood chips were spread evenly over the area at a rate of 15 to 17 tons per acre.

M. Noted during previous year's vegetation assessment (2004): The site looks incredible. Grass is everywhere. However, some kochia, cheatgrass, and Russian thistle are present. Woodchips are spread evenly. Forbs that were not in the seed mix are present. The rim of the basin is not as good as the rest of the site, but it still has ample seedlings. Stoller seeded this site in November 2003. Only the trenches west of the pond were assessed before 2004.

N. Recommendations from previous year's vegetation assessment (2004): Continue annual vegetation monitoring until the site contains 70% coverage of native perennials compared to the surrounding vegetation in accordance with the former SWPPP goal adopted as a best-management practice at Miscellaneous Sites Cleanup Project revegetation sites. Control noxious weeds, if necessary. As necessary, control weeds on the entry road only. Determine a path forward after the 2005 vegetation assessment. Possibly add revegetation area signs and a two-strand wire fence around the area to eliminate vehicle traffic if that becomes a problem.

O. Additional information: NA

WAG 5 Monitoring Well PBF-MON-A-003

A. Site name: **WAG 5 Monitoring Well PBF-MON-A-003**

B. Site location: Outside the Power Burst Facility (PBF) perimeter fence, about 0.9 mi southeast of Jefferson Boulevard (and Building PBF-632) on Wilson Boulevard, south of the Mixed Waste Storage Facility

C. Date and time of site's vegetation assessment: NA

D. Status of the site (2005): NA

E. Current recommendation (2005): Monitor and control noxious weeds (i.e., rush skeletonweed) at least twice per year.

F. Time period that site should be manually weeded or sprayed for weeds: Fall and spring

G. Date of site's weed assessment and/or date scheduled to be sprayed for weeds:
Spring and Fall 2005 and Spring 2006

H. Herbicide used/recommended (if applicable) (2005): Round Up was used (in accordance with EA-CER-021: "…not within 5 ft of a monitoring well").

I. Date scheduled for site seeding or reseeding (unless being compacted and/or paved):
To be determined

J. Site size and dimensions: 225 ft^2 (15 × 15 ft)

K. Seed rate and mix used/required: The seed rate used in 2001 was 11 lb per acre. The seed mix consisted of Wyoming big sagebrush (0.5 lb), green rabbitbrush (0.5 lb), Rimrock Indian ricegrass (2 lb), Bannock thickspike wheatgrass (2 lb), Sodar streambank wheatgrass (2 lb), Goldar streambank wheatgrass (2 lb), Munro globemallow (1 lb), and northern sweetvetch (1 lb).

L. Fertilizer and amendment rate and type used/recommended (if applicable): No fertilizer was applied, because this is a wellhead. Only 1 bushel of rice hulls per acre was used.

M. Noted during previous year's vegetation assessment (2004): There is a graveled road into the site and around the well. A few scattered kochia and Russian thistle are present and might have been sprayed. Rush skeletonweed might be growing in the gravel by the well. Eight plants were hand pulled in June 2004.

N. Recommendations from previous year's vegetation assessment (2004): Monitor and control noxious weeds (i.e., rush skeletonweed) at least twice per year. Cancel annual vegetation monitoring, since the site contains 70% coverage of native perennials compared to the surrounding vegetation in accordance with the former SWPPP goal adopted as a best-management practice at Miscellaneous Sites Cleanup Project revegetation sites. As necessary, control weeds on the entry road only. Determine a path forward after the 2005 vegetation assessment.

O. Additional information (2004): Weedar and Redeem were used (in accordance with EA-CER-021: "…not within 5 ft of a monitoring well").

WAG 5 Monitoring Well PBF-MON-A-004

A. Site name: **WAG 5 Monitoring Well PBF-MON-A-004**

B. Site location: About 1 mi southeast of PBF (inside the perimeter fence and 0.1 mi south of the Waste Experiment Reduction Facility)

C. Date and time of site's vegetation assessment: June 23, 2005

D. Status of the site (2005): The area looks beautiful; it is full of rabbitbrush and grasses. There are some cheatgrass patches and very little Russian thistle and halogeton. Some crested wheatgrass is present. Green rabbitbrush, squirreltail, Indian ricegrass, and flax also are visible. On November 23, the bare area, approximately 40 ft long by 20 ft wide (10 lines), on the southside of the well head was reseeded using the Planet Junior. In addition, a shovel was used to dig and cover 1-in. holes approximately every 0.25–0.5 ft to reseed around the well head and approximately every 1–2 ft to reseed around the perimeter, near the well cuttings on the southeast side, near the concrete and in the bare areas on the east and south sides.

E. Current recommendation (2005): Reseed the bare areas during Fall 2005 or 2006. Continue monitoring and managing the vegetation (via the annual assessment) for 2-5 years and conducting weed control (i.e., spraying cheatgrass), if necessary, until the disturbed area meets 70% cover of the background/native perennial species.

F. Time period that site should be manually weeded or sprayed for weeds: Fall and spring

G. Date of site's weed assessment and/or date scheduled to be sprayed for weeds:
To be determined—possibly the fall of 2004

H. Herbicide used/recommended (if applicable) (2005): Round Up was used (in accordance with EA-CER-021: "…not within 5 ft of a monitoring well").

I. Date scheduled for site seeding or reseeding (unless being compacted and/or paved):
To be determined

J. Site size and dimensions: 225 ft^2 (15 × 15 ft)

K. Seed rate and mix used/required: The seed rate used in 2001 was 11 lb per acre. The seed mix consisted of Wyoming big sagebrush (0.5 lb), green rabbitbrush (0.5 lb), Rimrock Indian ricegrass (2 lb), Bannock thickspike wheatgrass (2 lb), Sodar streambank wheatgrass (2 lb), Goldar streambank wheatgrass (2 lb), Munro globemallow (1 lb), and northern sweetvetch (1 lb).

L. Fertilizer and amendment rate and type used/recommended (if applicable): No fertilizer was applied, because this is a wellhead. Only 1 bushel of rice hulls per acre was used.

M. Noted during previous year's vegetation assessment (2004): The site appears to be in excellent shape. It contains rabbitbrush, flax, needle and thread grass, squirreltail grass, thickspike wheatgrass, and Indian ricegrass. Some halogeton, kochia, and Russian thistle are present. A large patch of bare ground also is present—perhaps as a result of what looks like drill cuttings or concrete.

N. Recommendations from previous year's vegetation assessment (2004): Remove drill cuttings/concrete manually. If necessary, add topsoil and reseed that small area manually or by using a Planet Junior, possibly during the fall of 2004 or 2005. Continue annual vegetation monitoring for about 2 more years until the site contains 70% coverage of native perennials compared to the surrounding vegetation in accordance with the former SWPPP goal adopted as a best-management practice at Miscellaneous Sites Cleanup Project revegetation sites. Control weeds on the entry road only, as necessary. Determine a path forward after the 2005 vegetation assessment.

O. Additional information: NA

WAG 5 Monitoring Well PBF-MON-A-005

A. Site name: **WAG 5 Monitoring Well PBF-MON-A-005**

B. Site location: About 0.7 mi northeast of PBF near the Special Power Excursion Reactor Test No. 2 (SPERT II)

C. Date and time of site's vegetation assessment: June 23, 2005

D. Status of the site (2005): The area looks incredible, almost totally natives (needle and thread grass, squirreltail, winterfat, rabbitbrush, Indian ricegrass, numerous forbs (including globemallow and sagebrush) as well as flax and mustards. There are only a couple Russian thistle around the wellhead. Minor cheatgrass is located on the northside and halogeton is located near the road.

E. Current recommendation (2005): Cancel the annual vegetation assessment and weed control since the site has met the 70% cover of the background/native perennial species.

F. Time period that site should be manually weeded or sprayed for weeds: Fall and spring

G. Date of site's weed assessment and/or date scheduled to be sprayed for weeds: NA

H. Herbicide used/recommended (if applicable): No herbicides were used.

I. Date scheduled for site seeding or reseeding (unless being compacted and/or paved): NA

J. Site size and dimensions: 225 ft^2 (15 × 15 ft)

K. Seed rate and mix used/required: The seed rate used in 2001 was 11 lb per acre. The seed mix consisted of Wyoming big sagebrush (0.5 lb), green rabbitbrush (0.5 lb), Rimrock Indian ricegrass (2 lb), Bannock thickspike wheatgrass (2 lb), Sodar streambank wheatgrass (2 lb), Goldar streambank wheatgrass (2 lb), Munro globemallow (1 lb), and northern sweetvetch (1 lb).

L. Fertilizer and amendment rate and type used/recommended (if applicable): No fertilizer was applied, because this is a wellhead. Only 1 bushel of rice hulls per acre was used.

M. Noted during previous vegetation assessments (2004): A large graveled area with Russian thistle and some patches of cheatgrass are present. There is a good compilation of native shrub and grass. Flaxseed is showing good establishment (must have been in the seed mix?). Sagebrush is coming in on the edges of the site.

N. Recommendations from previous vegetation assessments (2004): Continue annual vegetation monitoring for another year, since the site almost contains the 70% coverage of native perennials compared to the surrounding vegetation in accordance with the former SWPPP goal adopted as a best-management practice at Miscellaneous Sites Cleanup Project revegetation sites. Determine a path forward after the 2005 vegetation assessment.

O. Additional information: NA

ARA-21 Remediation Site/ARA-IV Seepage Pit

A. Site name: **ARA-21 Remediation Site/ARA-IV Seepage Pit**

B. Site location: North of Wilson Boulevard near the Auxiliary Reactor Area (ARA) -VI outside the facility fence

C. Date and time of site's vegetation assessment: June 23, 2005

D. Status of the site (2005): There is good grass coverage with various forbs and shrubs. The site looks great; ryegrass, crested wheatgrass, globemallow, Indian ricegrass, other wheatgrasses, sagebrush, grey rabbitbrush, and squirreltail are present. There are no weeds. There is also no road through the revegetation area; the road was present in 2004. The perimeter has the same vegetation as the site.

E. Current recommendation (2005): Cancel the annual vegetation assessment and weed control, since the site has met the 70% cover of background/native perennial species.

F. Time period that site should be manually weeded or sprayed for weeds: Fall and spring

G. Date of site's weed assessment and/or date scheduled to be sprayed for weeds: NA

H. Herbicide used/recommended (if applicable) (2005): No herbicides were used.

I. Date scheduled for site seeding or reseeding (unless being compacted and/or paved): NA

J. Site size and dimensions: 3,000 ft^2 (~100 × ~30 ft)

K. Seed rate and mix used/required: The seed rate used in 2001 was 11 lb per acre. The seed mix consisted of Wyoming big sagebrush (0.5 lb), green rabbitbrush (0.5 lb), Rimrock Indian ricegrass (2 lb), Bannock thickspike wheatgrass (2 lb), Sodar streambank wheatgrass (2 lb), streambank wheatgrass Goldar (2 lb), Munro globemallow (1 lb), and northern sweetvetch (1 lb).

L. Fertilizer and amendment rate and type used/recommended (if applicable): 50 lb ammonium phosphate per acre; 1 bushel of rice hulls per acre and wood chips were spread over the area.

M. Noted during previous year's vegetation assessments (2004): A road runs through the site and does not need gravel. The soil at the site is good, and numerous grasses, shrubs, and forbs are becoming established. Some cheatgrass, Russian thistle, and halogeton are present, but large plants appear to have been sprayed.

N. Recommendations from previous year's vegetation assessments (2004): Continue annual vegetation monitoring for another year, since the site almost contains the 70% coverage of native perennials compared to the surrounding vegetation in accordance with the former SWPPP goal adopted as a best-management practice at Miscellaneous Sites Cleanup Project revegetation sites. Determine a path forward after the 2005 vegetation assessment.

O. Additional information (2004): Weedar and Redeem were used. (April 2004): The site was assessed for weed growth.

ARA-13 Remediation Site/ARA-III Septic Tank and entire ARA-III Graveled Site

A. Site name: **ARA-13 Remediation Site/ARA-III Septic Tank and entire ARA-III Graveled Site**

B. Site location: South of Wilson Boulevard and east of Fillmore Boulevard at ARA-III

C. Date and time of site's vegetation assessment: June 23, 2005

D. Status of the site (2005): There is very limited vegetation; only kochia and crested wheatgrass are present. There is a huge bare area that is mainly gravel. Some crested wheatgrass in drill rows appear as though planted at this site. There is also some kochia scattered throughout, but it has been sprayed. The shed is gone as is the Canada thistle, which was present for many years west of the shed. There is one area around a power pole on the east side of the site that has rabbitbrush, squirreltail, foxtail barley, and some cheatgrass. On October 27, 2005, composite soil samples were collected from three areas (on the southwest between 0 and 2 in.; on the northwest between 0 and 3 in. and on the east-central between 0 and 6 in., below grade respectively), using a shovel. The soil was too compact and gravelly to use the soil probe.

E. Current recommendation (2005): Start over, test the soil, and follow soil test recommendations (i.e., fertilize, reseed, mulch, and irrigate). Continue monitoring and managing the vegetation (via the annual assessment) for >5 years and conducting weed control, as necessary, until the disturbed area meets 70% cover of the background/native perennial species. Analytical results indicate that the site has a very high pH (8.7) and very high magnesium (Mg), sulfate (SO_4^{2-}), and copper (Cu). The site also has high sodium (Na), excess lime (CaO), zinc (Zn), and boron (B), as well as low nitrate (NO_3^-) phosphorus (P), and potassium (K). Since this site is very calcareous, it would benefit from the addition of elemental sulfur (S), gypsum ($CaSO_4 \times 2H_20$), or acid-forming fertilizers would reduce the harmful effects of these soil properties.

F. Time period that site should be manually weeded or sprayed for weeds: Fall and spring

G. Date of site's weed assessment and/or date scheduled to be sprayed for weeds: Spring and Fall 2005 and Spring 2006

H. Herbicide used/recommended (if applicable) (2005): Curtail and Escort were used.

I. Date scheduled for site seeding or reseeding (unless being compacted and/or paved): To be determined—possibly Fall 2006

J. Site size and dimensions: Eastern part of ARA-III = ~4.5 acres (194,400 ft^2 = 540 ft × 360 ft) (ARA-13 only = 10,000 ft^2 [100 ft × 100 ft])

K. Seed rate and mix used/required: The seed rate used in 2001 was 11 lb per acre. The seed mix consisted of Wyoming big sagebrush (0.5 lb), green rabbitbrush (0.5 lb), Rimrock Indian ricegrass (2 lb), Bannock thickspike wheatgrass (2 lb), Sodar streambank wheatgrass (2 lb), Goldar streambank wheatgrass (2 lb), Munro globemallow (1 lb), and northern sweetvetch (1 lb).

L. Fertilizer and amendment rate and type used/recommended (if applicable): 50 lb ammonium phosphate per acre; 1 bushel of rice hulls per acre and wood chips were spread over the area.

M. Noted during previous vegetation assessments (2004): This site is huge, but it has very limited plant growth—mostly crested wheatgrass with few native species. Canada thistles by the shed were sprayed in 2004. This site has potential soil issues and will need to be tested before further revegetation work can be done.

N. Recommendations from previous year's vegetation assessment (2004): Test the soil during the fall of 2004 or spring of 2005, and follow the recommendations during the fall of 2004 and/or 2005. We might need to start the vegetation process over (i.e., reseed the entire area, remove or deep rip the gravel, and/or add topsoil). Add revegetation area signs and a two-strand wire fence around the area to eliminate potential vehicle traffic. Control noxious weeds (i.e., Canada thistle) on the site, as necessary. Continue annual vegetation monitoring until the site contains 70% coverage of native perennials compared to the surrounding vegetation in accordance with the former SWPPP goal

adopted as a best-management practice at Miscellaneous Sites Cleanup Project revegetation sites. Determine a path forward after the 2005 vegetation assessment.

O. Additional information (2004): Weedar and Redeem were used. (August 2004): According to the task manager (R. Wells), the remediation at the ARA-I, ARA-II, and ARA-III/ARA-12 pond is scheduled to be completed in the fall of 2004; therefore, this site should have no vehicle traffic and no equipment staged there after that time.

April 2004: The site was assessed for weed growth. According to the task manager, this site will be used as a staging area for the ARA-I and ARA-II remediation. Canada thistles are present near the shed in the southeast part of the site.

ARA-12 Pond (ARA-III Radiological Site)

A. Site name: **ARA-12 Pond (ARA-III Radiological Site)**

B. Site location: West of Fillmore Boulevard, across the street from ARA-12 in ARA-III

C. Date and time of site's vegetation assessment: June 23, 2005

D. Status of the site (2005): The site is still identified as a radiologically contaminated soil area and remains fenced. The site is inaccessible to foot and vehicle traffic. This assessment occurred at the south fence. From the fence on the southside, crested wheatgrass, mustard, halogeton, and Russian thistle appear to be the prominent species. There is also some native wheatgrass in drill rows. Canada thistle is present. There appears to be good woodchip cover. The vegetation on the north and west perimeters is not visible, and the south and east perimeters are roads.

E. Current recommendation (2005): Initiate noxious weed control (i.e., Canada thistle) during Fall 2005. Resume the annual vegetation assessment when the radiological fence and signs are removed. Continue monitoring and managing the vegetation (via the annual assessment) for >5 years and conducting weed control (i.e., spraying Canada and Russian thistle), as necessary, until the disturbed area meets 70% cover of the background/native perennial species.

F. Time period that site should be manually weeded or sprayed for weeds: Fall and spring

G. Date of site's weed assessment and/or date scheduled to be sprayed for weeds: Fall 2005 and Spring 2006

H. Herbicide used/recommended (if applicable) (2005): Curtail and Escort were used.

I. Date scheduled for site seeding or reseeding (unless being compacted and/or paved): To be determined

J. Site size and dimensions: ~1 acre (210 × 210 ft = 44,100 ft^2)

K. Seed rate and mix used/required: Seed rate required is 11 lb per acre. Seed mix required is Wyoming big sagebrush (0.5 lb), green rabbitbrush (0.5 lb), Rimrock Indian ricegrass (2 lb), Bannock thickspike wheatgrass (2 lb), Sodar streambank wheatgrass (2 lb), Goldar streambank wheatgrass (2 lb), Munro globemallow (1 lb), and northern sweetvetch (1 lb).

L. Fertilizer and amendment rate and type used/recommended (if applicable): The rate recommended is 50 lb ammonium phosphate per acre and 1 bushel of rice hulls per acre.

M. Noted during previous year's vegetation assessment (2004): This site is part of the ARA-I and ARA-II remediation occurring between 2003 and the fall of 2004. The site will then be turned over to LTS during Fiscal Year (FY) 2005.

N. Recommendations from previous year's vegetation assessment (2004): Initiate annual vegetation monitoring until the site contains 70% coverage of native perennials compared to the surrounding vegetation in accordance with the former SWPPP goal adopted as a best-management practice at Miscellaneous Sites Cleanup Project revegetation sites. Control noxious weeds, if necessary. Canada thistle was located at this site prior to remediation. Determine a path forward after the 2005 vegetation assessment.

O. Additional information (August 2004): According to the task manager (R. Wells), the remediation at the ARA-I, ARA-II, and ARA-III/ARA-12 pond is scheduled to be completed during the fall of 2004. The site will be reseeded during the fall of 2004 by Stoller/ICDF personnel/subcontractor using a seed mix provided by R. Blew.

ARA-08 Remediation Site/ARA-II West Seepage and North of the Formerly Fenced ARA-II

A. Site name: **ARA-08 Remediation Site/ARA-II West Seepage and north of the Formerly Fenced ARA-II**

B. Site location: East of Fillmore Boulevard, northwest of ARA-07 and the formerly fenced ARA-II

C. Date and time of site's vegetation assessment: June 23, 2005

D. Status of the site (2005): This site and ARA-07, ARA-16/25, and ARA-02 are still identified as radiologically contaminated soil areas and remain fenced. The sites are inaccessible to foot and vehicle traffic. This assessment occurred at the east fence on Fillmore Blvd, west of ARA I. The sites appear to have variable wood chip coverage. Grass seedlings are evident, but it is not possible to determine whether the seedlings are native or crested wheatgrass. Mustards and blue lettuce also are visible. Canada thistle is visible on the northeast side of Fillmore Boulevard. There is also a lot of kochia at these sites. Most of the perimeter is not visible at this time, but some perimeters are roads.

E. Current recommendation (2005): Initiate weed control, if necessary, during Fall 2005. Resume the annual vegetation assessment when the radiological fence and signs are removed. Continue monitoring and managing the vegetation (via the annual assessment) for >5 years and conducting weed control, as necessary, until the disturbed area meets 70% cover of the background/native perennial species.

F. Time period that site should be manually weeded or sprayed for weeds: Fall and spring

G. Date of site's weed assessment and/or date scheduled to be sprayed for weeds:
To be determined—possibly Spring 2006

H. Herbicide used/recommended (if applicable): To be determined

I. Date scheduled for site seeding or reseeding (unless being compacted and/or paved):
To be determined

J. Site size and dimensions: 225 ft^2 (15 × 15 ft)

K. Seed rate and mix used/required: The seed rate used in 2001 was 11 lb per acre. The seed mix consisted of Wyoming big sagebrush (0.5 lb), green rabbitbrush (0.5 lb), Rimrock Indian ricegrass (2 lb), Bannock thickspike wheatgrass (2 lb), Sodar streambank wheatgrass (2 lb), Goldar streambank wheatgrass (2 lb), Munro globemallow (1 lb), and northern sweetvetch (1 lb).

L. Fertilizer and amendment rate and type used/recommended (if applicable): 50 lb ammonium phosphate per acre and 1 bushel of rice hulls per acre were used.

M. Noted during previous vegetation assessments (2004): This site is part of the ARA-I and ARA-II remediation occurring between 2003 and the fall of 2004. The site will then be turned over to LTS during FY 2005.

N. Recommendations from previous vegetation assessments (2004): Resume/initiate annual vegetation monitoring until the site contains 70% coverage of native perennials compared to the surrounding vegetation in accordance with the former SWPPP goal adopted as a best-management practice at Miscellaneous Sites Cleanup Project revegetation sites. Control noxious weeds, if necessary. Canada thistle was located at this site prior to remediation. Determine a path forward after the 2005 vegetation assessment.

O. Additional information (August 2004): According to the task manager (R. Wells), remediation at the ARA-I, ARA-II, and ARA-III/ARA-12 pond is scheduled to be completed during the fall of 2004. The site will be reseeded during the fall of 2004 by Stoller/ICDF personnel/subcontractor using a seed mix provided by R. Blew.

ARA-07 Remediation Site/ARA-II South Seepage and North of the Formerly Fenced ARA-II

A. Site name: **ARA-07 Remediation Site/ARA-II South Seepage and north of the Formerly Fenced ARA-II**

B. Site location: East of Fillmore Boulevard, south of the formerly fenced ARA-II fence and north of ARA-I

C. Date and time of site's vegetation assessment: June 23, 2005

D. Status of the site (2005): This site and ARA-08, ARA-16/25, and ARA-02 are still identified as radiologically contaminated soil areas and remain fenced. The sites are inaccessible to foot and vehicle traffic. This assessment occurred at the east fence on Fillmore Boulevard, west of ARA I. The sites appear to have variable wood chip coverage. Grass seedlings are evident, but it is not possible to determine whether the seedlings are native or crested wheatgrass. Mustards and blue lettuce also are visible. Canada thistle is visible on the northeast side of Fillmore Boulevard. There is also a lot of kochia at these sites. Most of the perimeter is not visible at this time, but some perimeters are roads.

E. Current recommendation (2005): Initiate weed control, if necessary, during Fall 2005. Resume the annual vegetation assessment when the radiological fence and signs are removed. Continue monitoring and managing the vegetation (via the annual assessment) for >5 years and conducting weed control, as necessary, until the disturbed area meets 70% cover of the background/native perennial species.

F. Time period that site should be manually weeded or sprayed for weeds: Fall and spring

G. Date of site's weed assessment and/or date scheduled to be sprayed for weeds:
To be determined—possibly Spring 2006

H. Herbicide used/recommended (if applicable): To be determined

I. Date scheduled for site seeding or reseeding (unless being compacted and/or paved):
To be determined

J. Site size and dimensions: 225 ft^2 (15 ×15 ft)

K. Seed rate and mix used/required: The seed rate used in 2001 was 11 lb per acre. The seed mix consisted of Wyoming big sagebrush (0.5 lb), green rabbitbrush (0.5 lb), Rimrock Indian ricegrass (2 lb), Bannock thickspike wheatgrass (2 lb), Sodar streambank wheatgrass (2 lb), Goldar streambank wheatgrass (2 lb), Munro globemallow (1 lb), and northern sweetvetch (1 lb).

L. Fertilizer and amendment rate and type used/recommended (if applicable): 50 lb ammonium phosphate per acre and 1 bushel of rice hulls per acre were used.

M. Noted during previous vegetation assessments (2004): This site is part of the ARA-I and ARA-II remediation occurring between 2003 and the fall of 2004. The site will then be turned over to LTS during FY 2005.

N. Recommendations from previous vegetation assessments (2004): Resume/initiate annual vegetation monitoring until the site contains 70% coverage of native perennials compared to the surrounding vegetation in accordance with the former SWPPP goal adopted as a best-management practice at Miscellaneous Sites Cleanup Project revegetation sites. Control noxious weeds, if necessary. Canada thistle was located at this site prior to remediation. Determine a path forward after the 2005 vegetation assessment.

O. Additional information (August 2004): According to the task manager (R. Wells), remediation at the ARA-I, ARA-II, and ARA-III/ARA-12 pond is scheduled to be completed during the fall of 2004. The site will be reseeded during the fall of 2004 by Stoller/ICDF personnel/subcontractor using a seed mix provided by R. Blew.

ARA-02 Remediation Site ARA-I Sanitary Waste Leach Field and Seepage Pit (inside radiological control fence area)

A. Site name: **ARA-02 Remediation Site ARA-I Sanitary Waste Leach Field and Seepage Pit** (inside radiological control fence area)

B. Site location: East of Fillmore Boulevard at the southern part of ARA-I.

C. Date and time of site's vegetation assessment: June 23, 2005.

D. Status of the site (2005): This site and ARA-07, ARA-08, and ARA-16/25 are still identified as radiologically contaminated soil areas and remain fenced. The sites are inaccessible to foot and vehicle traffic. This assessment occurred at the east fence on Fillmore Boulevard, west of ARA I. The sites appear to have variable wood chip coverage. Grass seedlings are evident, but it is not possible to determine whether the seedlings are native or crested wheatgrass. Mustards and blue lettuce also are visible. Canada thistle is visible on the northeast side of Fillmore Boulevard. There is also a lot of kochia at these sites. Most of the perimeter is not visible at this time, but some perimeters are roads.

E. Current recommendation (2005): Initiate weed control, if necessary, during Fall 2005. Resume the annual vegetation assessment when the radiological fence and signs are removed. Continue monitoring and managing the vegetation (via the annual assessment) for > 5 years and conducting weed control, as necessary, until the disturbed area meets 70% cover of the background/native perennial species

F. Time period that site should be manually weeded or sprayed for weeds: Fall and spring

G. Date of site's weed assessment and/or date scheduled to be sprayed for weeds: To be determined—possibly Spring 2006

H. Herbicide used/recommended (if applicable): To be determined

I. Date scheduled for site seeding or reseeding (unless being compacted and/or paved): To be determined

J. Site size and dimensions: ~1.7 acres (500 × 150 ft)

K. Seed rate and mix used/required: The seed rate used in 2001 was 11 lb per acre. The seed mix consisted of Wyoming big sagebrush (0.5 lb), green rabbitbrush (0.5 lb), Rimrock Indian ricegrass (2 lb), Bannock thickspike wheatgrass (2 lb), Sodar streambank wheatgrass (2 lb), Goldar streambank wheatgrass (2 lb), Munro globemallow (1 lb), and northern sweetvetch (1 lb).

L. Fertilizer and amendment rate and type used/recommended (if applicable): 50 lb of ammonium phosphate per acre and 1 bushel of rice hulls per acre were used.

M. Noted during previous year's vegetation assessments (2004): This site is part of the ARA-I and ARA-II remediation occurring between 2003 and the fall of 2004. The site will then be turned over to LTS during FY 2005.

N. Recommendations from previous year's vegetation assessments (2004): Resume/initiate annual vegetation monitoring until the site contains 70% coverage of native perennials compared to the surrounding vegetation in accordance with the former SWPPP goal adopted as a best-management practice at Miscellaneous Sites Cleanup Project revegetation sites. Control noxious weeds, if necessary. Canada thistle was located at this site prior to remediation. Determine a path forward after the 2005 vegetation assessment.

O. Additional information (August 2004): According to the task manager (R. Wells), remediation at the ARA-I, ARA-II, and ARA-III/ARA-12 pond is scheduled to be completed during the fall of 2004. The site will be reseeded during the fall of 2004 by Stoller/ICDF personnel/subcontractor using a seed mix provided by R. Blew.

ARA-16/ARA-25 (ARA-I) Remediation Site (inside radiological control fence area)

A. Site name: **ARA-16/ARA-25 (ARA-I) Remediation Site** (inside radiological control fence area)

B. Site location: East of Fillmore Boulevard and north of ARA-02 at ARA-I

C. Date and time of site's vegetation assessment: June 23, 2005

D. Status of the site (2005): This site and ARA-02, ARA-07, and ARA-08 are still identified as radiologically contaminated soil areas and remain fenced. The sites are inaccessible to foot and vehicle traffic. This assessment occurred at the east fence on Fillmore Boulevard, west of ARA I. The sites appear to have variable wood chip coverage. Grass seedlings are evident, but it is not possible to determine whether the seedlings are native or crested wheatgrass. Mustards and blue lettuce also are visible. Canada thistle is visible on the northeast side of Fillmore Boulevard. There is also a lot of kochia at these sites. Most of the perimeter is not visible at this time, but some perimeters are roads.

E. Current recommendation (2005): Initiate weed control, if necessary, during Fall 2005. Resume the annual vegetation assessment when the radiological fence and signs are removed. Continue monitoring and managing the vegetation (via the annual assessment) for >5 years and conducting weed control, as necessary, until the disturbed area meets 70% cover of the background/native perennial species.

F. Time period that site should be manually weeded or sprayed for weeds: Fall and spring

G. Date of site's weed assessment and/or date scheduled to be sprayed for weeds:
To be determined—possibly Spring 2006

H. Herbicide used/recommended (if applicable): To be determined

I. Date scheduled for site seeding or reseeding (unless being compacted and/or paved):
To be determined

J. Site size and dimensions: 1,500 ft^2 (50 × 30 ft)

K. Seed rate and mix used/required: The seed rate used was 11 lb per acre. The seed mix consisted of Wyoming big sagebrush (0.5 lb), green rabbitbrush (0.5 lb), Rimrock Indian ricegrass (2 lb), Bannock thickspike wheatgrass (2 lb), Sodar streambank wheatgrass (2 lb), Goldar streambank wheatgrass (2 lb), Munro globemallow (1 lb), and northern sweetvetch (1 lb).

L. Fertilizer and amendment rate and type used/recommended (if applicable): The fertilized rate and type used was 50 lb of ammonium phosphate per acre. Amendment rates and types used were 1 bushel of rice hulls per acre and wood chips spread evenly over the area.

M. Noted during previous year's vegetation assessment (2004): This site is part of the ARA-I and ARA-II remediation occurring between 2003 and the fall of 2004. The site will then be turned over to LTS during FY 2005.

N. Recommendations from previous vegetation assessment (2004): Resume/initiate annual vegetation monitoring until the site contains 70% coverage of native perennials compared to the surrounding vegetation in accordance with the former SWPPP goal adopted as a best-management practice at Miscellaneous Sites Cleanup Project revegetation sites. Control noxious weeds, if necessary. Canada thistle was located at this site prior to remediation. Determine a path forward after the 2005 vegetation assessment.

O. Additional information (2004): The site was inaccessible during the June 2004 assessment. (August 2004): According to the task manager (R. Wells), remediation at the ARA-I, ARA-II, and ARA-II/ARA-12 pond is scheduled to be completed during the fall of 2004. The site will be reseeded during the fall of 2004 by Stoller/ICDF personnel/subcontractor using a seed mix provided by R. Blew.

Security Training Facility Demolition Area

A. Site name: **Security Training Facility Demolition Area**

B. Site location: Formerly located about 2 mi southeast of CFA on Arthur Boulevard approximately 0.4 mi southwest of the corner of Jefferson and Ogden Boulevards

C. Date and time of site's vegetation assessment: June 23, 2005

D. Status of the site (2005): A road runs through the site. There is horrible native plant coverage except on the eastside in the sinkhole area. Eastside—the sinkhole/swale area (in the south-central portion of the site) has ample grass and sagebrush. Mustard, crested wheatgrass, Indian ricegrass, squirreltail, sweetclover, pepperweed, and gray rabbitbrush also are present. The north end has a large woodchip pile. Westside—halogeton is present along the road. Kochia also is present. Some good wheatgrasses, Indian ricegrass, crested wheatgrass, and pepperweed are visible. Some cheatgrass and halogeton are evident. There is still trash (especially metal debris) on the site. The northside of the site appears driven on (around the Jersey Barrier installed during Fall 2002). The perimeter is mostly crested wheatgrass, sagebrush, and rabbitbrush.

E. Current recommendation (2005): Follow recommendations from the 2003 soil test. Treat/amend soil, as needed, and reseed the entire area (with Truax/equivalent), except the sinkhole and any other areas with good native plant establishment. If it is a dry spring, irrigate as needed until plants are established. Continue monitoring and managing the vegetation (via the annual assessment) for >5 years and conducting weed control (i.e., spraying Canada thistle, halogeton, and kochia, if necessary) until the disturbed area meets 70% cover of the background/native perennial species.

F. Time period that site should be manually weeded or sprayed for weeds: Spring and fall

G. Date of site's weed assessment and/or date scheduled to be sprayed for weeds: Spring and Fall 2005 and Spring 2006

H. Herbicide used/recommended (if applicable) (2005): Curtail and Escort were used.

I. Date scheduled for site seeding or reseeding (unless being compacted and/or paved): To be determined, possibly Fall 2006

J. Site size and dimensions: 17.8 acres (960 × 810 ft)

K. Seed rate and mix used/required: The seed rate used was 13 lb per acre. The seed mix consisted of Critana thickspike wheatgrass (3 lb), Sodar streambank wheatgrass (3 lb), winterfat (2 lb), Nezpar Indian ricegrass (4 lb), and Wyoming big sagebrush (1 lb).

L. Amount and type of fertilizer and other amendments (if applicable): The fertilizer amount and type used are unknown. The amendment rate used was 1 bushel of rice hulls per acre.

M. Noted during previous year's vegetation assessment (2004): Some random rows of good grass are present. Ample grass is growing in the sinkhole area. Some squirreltail grass is growing around the wood chip pile on the north-central part of the site, and some shrubs or forbs and sagebrush have been established (20-plus plants). A poor job was done of spreading wood chips; a large pile of the chips was left over. Garbage from the decontamination and decommissioning (D&D) process was strewn all over the area. No noxious weeds were present, but the Canada thistle reported last year was sprayed.

N. Recommendations from previous year's vegetation assessment (2004): During the fall of 2004 or spring of 2005, do the following. First, remove all of the D&D debris. Second, start the vegetation process over, and follow the soil test recommendation for the area from the fall of 2003. During the fall of 2004 or 2005, add topsoil and amendments and then reseed. Third, add revegetation area signs and a two-strand wire fence around the area to eliminate vehicle traffic. Then resume annual vegetation monitoring until the site contains 70% coverage of native perennials compared to the surrounding vegetation in accordance with the former SWPPP goal adopted as a best-management practice at Miscellaneous Sites Cleanup Project revegetation sites. As

necessary, control weeds on the entry road only. Determine a path forward after the 2005 vegetation assessment.

O. Additional information (2004): Weedar and Redeem were used.

EBR-I Former Drainfield (EBR-03) Area (EBR-I/EBR-03 outside the fence)

A. Site name: **EBR-I Former Drainfield (EBR-03) Area (EBR-I/EBR-03 outside the fence)**

B. Site location: The seepage pit/drainfield was located southeast of the septic tank (EBR-04) and outside the east perimeter fence.

C. Date and time of site's vegetation assessment: June 29, 2005

D. Status of the site (2005): There is a white-top/hoary cress infestation at the site with large monocultures in places. Some good species are visible, including occasional grasses (Indian ricegrass, wheatgrasses, and squirreltail), rabbitbrush, and numerous mustards. Halogeton and cheatgrass also are present. Vehicle traffic is evident. The eastern perimeter contains mustard, sagebrush, native grasses, and cheatgrass. There are also a lot of hoary cress and cheatgrass located along and beside the ditch on the northside of the site. On October 27, 2005, composite soil samples were collected from two areas using the soil probe from 0–4 in then a shovel from 4–8 in. below grade. The soil was very dry and silty.

E. Current recommendation (2005): Start over and eradicate the hoary cress, if possible, by spraying three times per year. (Whitetop is best managed with an aggressive re-application program of herbicides. The plant should be sprayed in early spring during regrowth before the bud stage and again during the fall regrowth before the first frost.) Manage other weeds (i.e., cheatgrass and halogeton, if necessary.) Test the soil and follow recommendations (i.e., manually? amend; reseed; irrigate, if possible.) Continue monitoring and managing the vegetation (via the annual assessment) for >5 years and conducting weed control (i.e., spraying hoary cress, halogeton, and cheatgrass), as necessary, until the disturbed area meets 70% cover of the background/native perennial species. Analytical results indicate that the site has a very high pH (8.5), very high excess lime (CaO), magnesium (Mg), and sulfate (SO_4^{2-}). The site also has high sodium (Na), copper (Cu), and boron (B), as well as low phosphorus (P^-). Since this site is very calcareous, it would benefit from the addition of elemental sulfur (S), gypsum ($CaSO_4 \times 2H_20$), or acid-forming fertilizers would reduce the harmful effects of these soil properties.

F. Time period that site should be manually weeded or sprayed for weeds: Fall and spring. Hoary cress should be sprayed in early to mid-April before flowering to be effective. Canada thistle should be sprayed in the spring to early summer.

G. Date of site's weed assessment and/or date scheduled to be sprayed for weeds: Spring and Fall 2005 and Spring 2006

H. Herbicide used/recommended (if applicable) (2005): Curtail and Escort were used.

I. Date scheduled for site seeding or reseeding (unless being compacted and/or paved): To be determined—possibly during Fall 2006.

J. Site size and dimensions: Seepage pit/drainfield = ~50 × ~50 ft; ~2 acres (300 × 300 ft)—problem area

K. Seed rate and mix used/required: In the fall of 2003, the seed rate and mix used outside the fence were the same as those recommended in 1999—i.e., a recommended seed rate of 15 lb per acre and a seed mix consisting of Critana thick-spike wheatgrass (2 lb), Sodar streambank wheatgrass (2 lb), Secar bluebunch wheatgrass (4 lb), Sandberg's bluegrass (4 lb), northern sweetvetch (1 lb), and scarlet globemallow (2 lb). The seed rate and mix used are unknown for any other seeding event that might have occurred at this site.

L. Fertilizer and amendment rate and type used/recommended (if applicable): To be determined

M. Noted during previous vegetation assessments (2004): Poverty weed, rabbitbrush, and some native grasses are present. Large patches of cheatgrass, halogeton, and whitetop also were found. Most of the area has no plant growth. The edges of the site look the best with natural seeding from surrounding plants. Deep drill rows were noted. Weeds were sprayed in late June.

N. Recommendations from previous vegetation assessments (2004): Control noxious weeds (i.e., Canada thistle and whitetop), as necessary. Spray whitetop during its rosette stage in the spring or during regrowth in the fall. Add nitrogen fertilizer to stimulate grasses and slow whitetop. Add revegetation area signs and a two-strand wire fence on the east side of the site (or fence entire site) to eliminate vehicle traffic. Continue annual vegetation monitoring until the site contains 70% coverage of native perennials compared to the surrounding vegetation in accordance with the former SWPPP goal adopted as a best-management practice at Miscellaneous Sites Cleanup Project revegetation sites.

O. Additional information (2004): Weedar and Redeem were used. In the past, Plateau was recommended for cheatgrass, Weedar 64 was used for hoary cress, and Curtail was used for Canada thistle.

BORAX-V inside Facility Fence

Boiling Water Reactor Experiment (BORAX) -V Sites:

A. Site name: **BORAX-V inside Facility Fence**

B. Site location: In the southwest part of the Idaho National Laboratory (INL), BORAX-II through BORAX-V area

C. Date and time of site's vegetation assessment: June 29, 2005

D. Status of the site (2005): A large cement pad (possibly a concrete foundation/basement) with a plastic tarp is located in the center of the fenced area. There is a nice assortment of native plants (i.e., rabbitbrush, squirreltail, wheatgrasses, flax, and globemallow) around the pad. In addition, sweetclover and some crested wheatgrass are located on the southside. Curlycup gumweed and fleabane also are present. There is ample cheatgrass. There are some halogeton patches west of the concrete pad. The perimeter contains the same as the inside.

E. Current recommendation (2005): Remove from LTS management. Determine whether this site is under LTS management. If so, cancel the vegetation assessment if the cement pad cannot be removed. Continue weed control (i.e., Canada thistle identified in 2003). If cement pad can be removed, manually amend and reseed the area. Irrigate, if possible. Continue monitoring and managing the vegetation (via the annual assessment) and conducting weed control, as necessary, until the disturbed area meets 70% cover of the background perennial species.

F. Time period that site should be manually weeded or sprayed for weeds: Spring to early summer

G. Date of site's weed assessment and/or date scheduled to be sprayed for weeds: Spring and Fall 2005 and Spring 2006

H. Herbicide used/recommended (if applicable) (2005): No herbicides were used.

I. Date scheduled for site seeding or reseeding (unless being compacted and/or paved): To be determined

J. Site size and dimensions: ~5 acres (~400 × ~500 ft = ~100,000 ft^2)

K. Seed rate and mix used/required: The recommended seed rate at Experimental Breeder Reactor (EBR) -I was 15 lb per acre, and the seed mix consisted of Critana thick-spike wheatgrass (2 lb), Sodar streambank wheatgrass (2 lb), Secar bluebunch wheatgrass (4 lb), Sandberg's bluegrass (4 lb), northern sweetvetch (1 lb), and scarlet globemallow (2 lb).

L. Fertilizer and amendment rate and type used/recommended (if applicable): To be determined

M. Noted during previous vegetation assessments (2004): A large cement pad with logs and tarps is in the middle of the area. Why wasn't this removed? A few large, generally bare spots with halogeton are present, and the road covered with soil has no vegetation whatsoever. The west half of the site looks good with 90% native species and about 40% cover. Good sagebrush recruitment is evident in the southern corner.

N. Recommendation from previous vegetation assessments (2004): Determine long-term issues. After FY 2005, remove D&D debris, manually reseed bare areas (it remains to be determined whether this site will be reseeded), and control noxious weeds, as necessary. Continue annual vegetation monitoring until debris and bare parts of the site contain 70% coverage of native perennials compared to the surrounding vegetation in accordance with the former SWPPP goal adopted as a best-management practice at Miscellaneous Sites Cleanup Project revegetation sites.

O. Additional information: NA

BORAX-V Revegetation

A. Site name: **BORAX-V Revegetation**

B. Site location: In the southwest part of the INL, BORAX-II through BORAX-V area

C. Date and time of site's vegetation assessment: June 29, 2005

D. Status of the site (2005): The road into the facility still has very little plant establishment; it is still being driven on even though there is a Jersey barrier and signs requesting its closure. There is extensive globemallow present. There is also a great amount of cover with an excellent variety of grass, forb, and shrub natives. The road divides the site into east and west sides. Eastside—squirreltail, rabbitbrush, Indian ricegrass, sagebrush, and desert dusty maiden are present. Flax, purple mustard, and pepperweed also are present. Crested wheatgrass is intermixed with the above species. Patches of cheatgrass and halogeton also are evident. The northeast perimeter has a huge area of needle and thread grass. The eastern perimeter has the same species as the site. Westside—wheatgrasses, squirreltail, globemallow, and rabbitbrush are present. Crested wheatgrass and flax also are present. There are several areas of gravel and some bare spots. Some patches of kochia and cheatgrass also are visible. There is still evidence of vehicle traffic. The east and west perimeters (along the road) contain sagebrush, rabbitbrush, crested wheatgrass, buckwheat, other wheatgrasses, squirreltail, ryegrass, Indian ricegrass, some cheatgrass, and prickly pear. Some kochia is evident in the margins of the gravel road. On October 27, 2005, composite soil samples were collected from two bare areas (one on the east side and one on the west side of the road that bisects this site), between the surface and 4 in. below grade using a shovel. The soil was very dry and compact in these bare areas.

E. Current recommendation (2005): Continue monitoring and managing the vegetation (via the annual assessment) for 2–5 years and conducting weed control, as necessary, until the disturbed area meets 70% cover of the background/native perennial species. Analytical results indicate that the site has very high excess lime (CaO) and magnesium (Mg^{2+}) and a high pH (8.4). The site also has low sodium (Na), nitrate (NO^{3-}), sulfate (SO_4^{2-}), and zinc (Zn). Since this site is very calcareous, it would benefit from the addition of elemental sulfur (S), gypsum ($CaSO_4 \times 2H_20$), or acid-forming fertilizers would reduce the harmful effects of these soil properties. Reseed the bare areas during Fall 2006 or 2007, either manually or with the Planet Junior.

F. Time period that site should be manually weeded or sprayed for weeds: Spring to early summer

G. Date of site's weed assessment and/or date scheduled to be sprayed for weeds: Spring and Fall 2005 and Spring 2006

H. Herbicide used/recommended (if applicable) (2005): No herbicides were used.

I. Date scheduled for site seeding or reseeding (unless being compacted and/or paved): To be determined

J. Site size and dimensions: ~0.3 acres (15,000 ft^2 = 150 × 100 ft). Weeds encompassed 2,500 ft^2 = 100 × 25 ft.

K. Seed rate and mix used/required: The recommended seed rate used in 2001 at EBR-I was 15 lb per acre, and the seed mix consisted of Critana thick-spike wheatgrass (2 lb), Sodar streambank wheatgrass (2 lb), Secar bluebunch wheatgrass (4 lb), Sandberg's bluegrass (4 lb), northern sweetvetch (1 lb), and scarlet globemallow (2 lb).

L. Fertilizer and amendment rate and type used/recommended (if applicable): NA

M. Noted during previous year's vegetation assessment (2004): Large globemallow and flax are present along the road into the facility. Patches of squirreltail, thickspike wheatgrass, and Sandberg's bluegrass are growing. Large patches of bare ground and halogeton also are present. Various forbs not included in the seed mix were found. The road around the old facility is almost completely revegetated in some places and has filled in primarily with native plants. One patch of cheatgrass was found on the northeast side.

N. Recommendation from previous year's vegetation assessments (2004): Control noxious weeds, as necessary. Determine a path forward after the 2005 vegetation assessment. After FY 2005, add revegetation area signs (again) and a two-strand wire fence on the south, east, and west sides of the site to eliminate vehicle traffic extending to the BORAX-V fence. Find out whether environmental monitoring personnel/others need access to the perimeter of BORAX-V. If so, continue the fencing along the north side to protect the site, but control traffic and allow access. Control noxious weeds, as necessary. Continue annual vegetation monitoring of bare parts of the site until it contains 70% coverage of native perennials compared to the surrounding vegetation in accordance with the former SWPPP goal adopted as a best-management practice at Miscellaneous Sites Cleanup Project revegetation sites.

O. Additional information: NA

Large-Scale Infiltration Test (Infiltration Basin)

A. Site name: **Large-Scale Infiltration Test (Infiltration basin)**

B. Site location: About 8 mi south of the Radioactive Waste Management Complex

C. Date and time of site's vegetation assessment: June 29, 2005

D. Status of site (2005): Basin—the basin bottom and sides look great. Sagebrush, foxtail barley, squirreltail, and mixed wheatgrasses are present. No Canada thistle is evident. Rim—the rim is still fairly bare of vegetation except some halogeton and Russian thistle. However, squirreltail, Indian ricegrass, and mustards are present on the rim and appear to be establishing well. There is much less Canada thistle compared with last year: only three rosettes located on the northwest rim. Stockpile—kochia and desert alyssum are the dominant species with minimal mustard. There is some crested wheatgrass on the north end, but it is already dried up and dead. There are small patches of cheatgrass. The perimeter contains sagebrush and crested wheatgrass.

E. Current recommendation (2005): Basin and rim—continue monitoring and managing the vegetation (via the annual assessment) and conducting weed control (i.e., spraying Canada thistle twice per year), as necessary, for at least another year or until the disturbed area meets 70% cover of the background/native perennial species. Stockpile—start over. Follow the November 2003 soil test recommendations, if appropriate. Amend and reseed during Fall 2006 or Fall 2007, and possibly irrigate to establish plant growth. Continue monitoring and managing the vegetation (via the annual assessment) >5 years and conducting weed control (i.e., spraying Canada thistle twice per year), as necessary, until the disturbed area meets 70% cover of the background/native perennial species.

F. Time period that site should be manually weeded or sprayed for weeds: Fall and spring

G. Date of site's weed assessment and/or date scheduled to be sprayed for weeds: Spring and Fall 2005 and Spring 2006

H. Herbicide used/recommended (if applicable) (2005): Weedar and Redeem were used.

I. Date scheduled for site seeding or reseeding (unless being compacted and/or paved): To be determined—possibly the Fall of 2006

J. Site size and dimensions: The basin is ~1.6 acres (~300-ft diameter = ~70,640 ft^2). The stockpile is ~0.2 acres (~100 × ~100 ft = ~10,000 ft^2); ~2 acres (300 × 300 ft)—problem area.

K. Amount and seed mix used/required: The required seed rate is 12 lb per acre. The required mix consists of Wyoming big sagebrush (0.5 lb), green rabbitbrush (0.5 lb), Rimrock Indian ricegrass (2 lb), Bannock thickspike wheatgrass (2 lb), Bottlebrush squirreltail (2 lb), Goldar bluebunch wheatgrass (2 lb), needle and thread grass (2 lb), and Monro globemallow (1 lb).

L. Amount and type of fertilizer and other amendments (if applicable): To be determined

M. Noted during previous vegetation assessments (2004): The bottom of the site looks great other than random tire tracks around the basin. The top of the berm is still largely lacking in vegetation; some squirreltail grass is present, but the vegetation is mostly Russian thistle and kochia. A patch of Canada thistle is growing on the inside rim. Some crested wheatgrass is growing on the north end of the site. The site is full of kochia and desert alyssum. Patches of cheatgrass are present on the stockpile and top of the berm.

N. Recommendation from previous year's vegetation assessment (2004): During the fall of 2004, follow the soil test recommendation from the fall of 2003 for the stockpile area, including reseeding it. During FY 2005, add revegetation area signs, erect a two-strand wire fence east of the first basin well to prevent vehicle traffic, and establish one two-track road to the first well to control traffic. Control noxious weeds (i.e., Canada thistle) in the basin twice per year. As necessary, control other weeds on the entry road only. Continue annual vegetation monitoring until bare parts of the site contain 70% coverage of native perennials compared to the surrounding vegetation in accordance with the former SWPPP goal adopted as a best-management practice at Miscellaneous Sites

Cleanup Project revegetation sites. Determine a path forward after the 2005 vegetation assessment.

O. Additional information (2004): Herbicides Weedar and Redeem were used.

Appendix C

Fiscal Years 2005 and 2006
Idaho Cleanup Project Weed Control and Revegetation Site Maps

CONTENTS

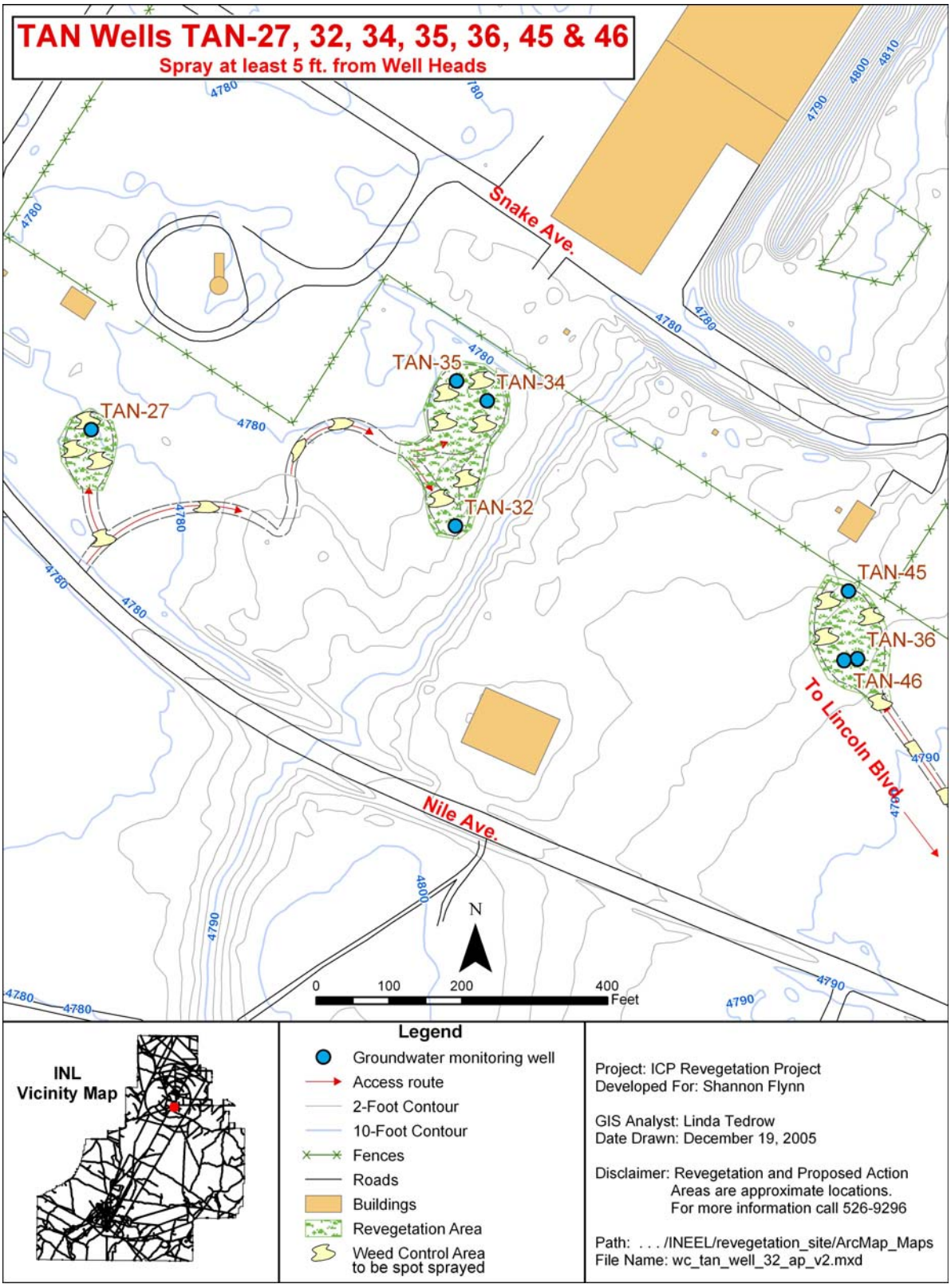

Figure C-1. Map of the well sites outside of and adjacent to the Test Area North/Technical Support Facility fence (TAN-27, TAN-32, TAN-34, TAN-35, TAN-36, TAN-45, and TAN-46).

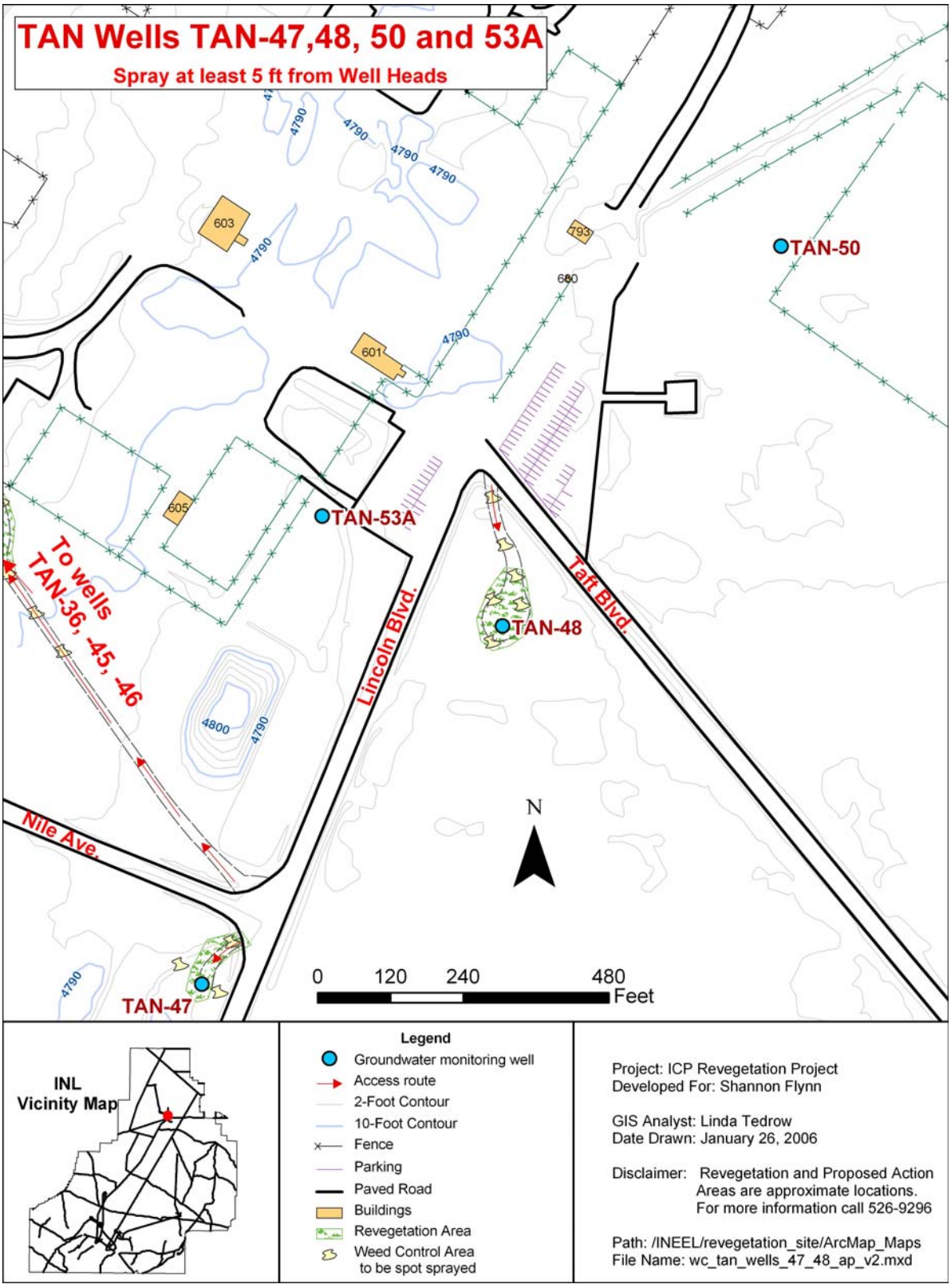

Figure C-2. Map of the well sites outside of and adjacent to the Technical Support Facility fence (TAN-47, TAN-48, TAN-50, and TAN-53A).

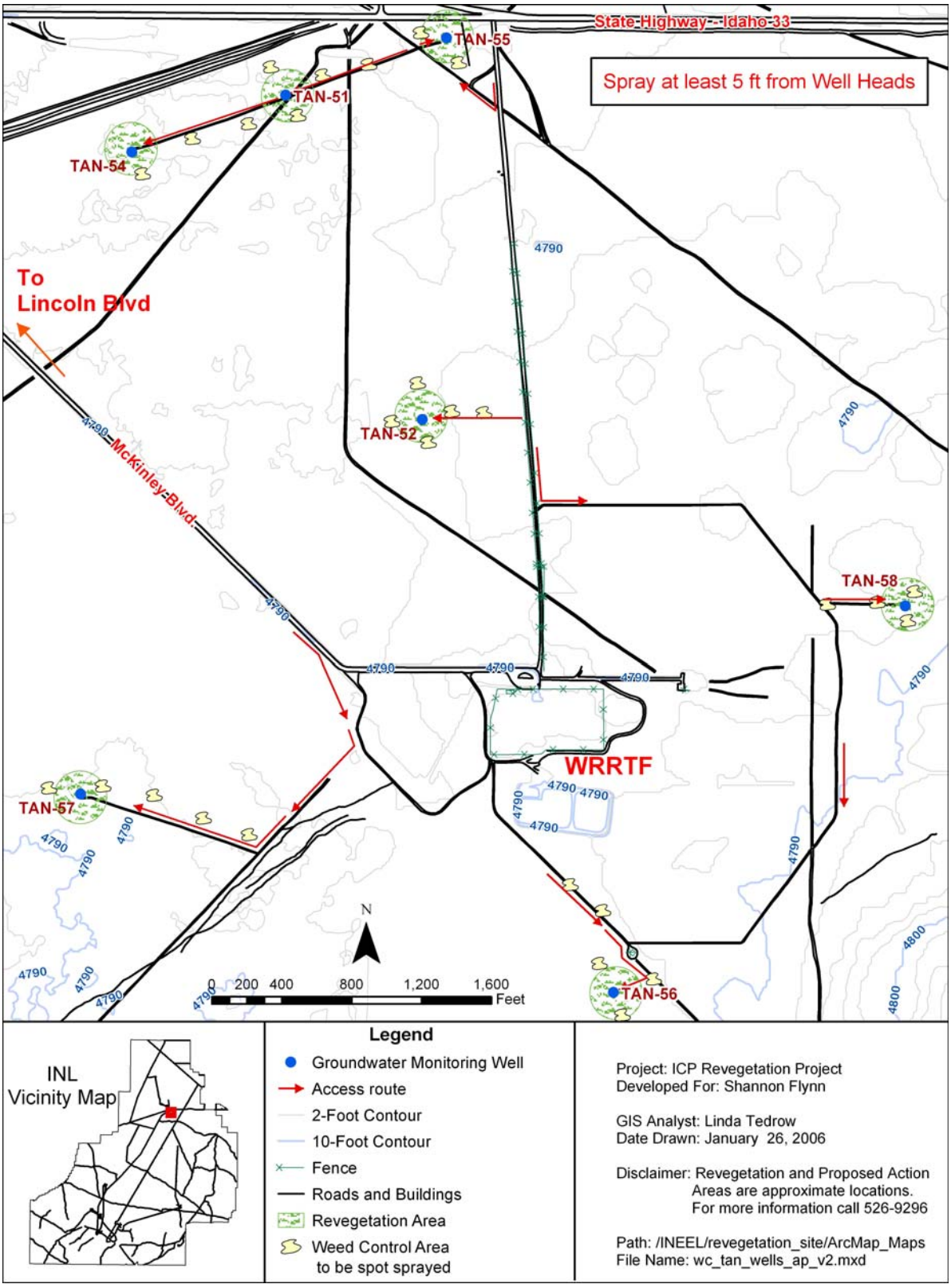

Figure C-3. Map of the well sites outside and south of the Technical Support Facility fence (TAN-51, TAN-52, TAN-54, TAN-55, TAN-56, TAN-57, and TAN-58).

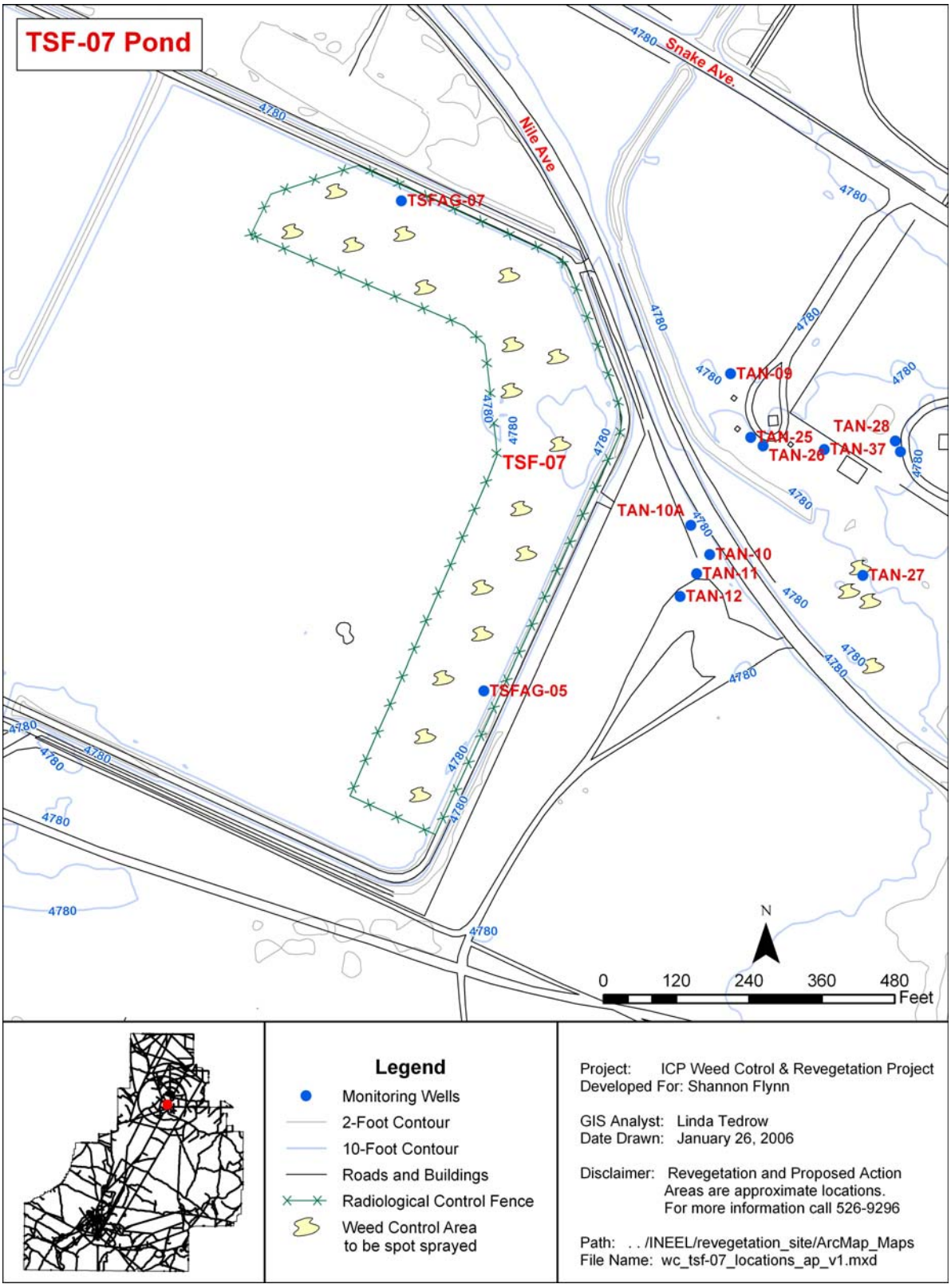

Figure C-4. Map of the TSF-07 leach pond.

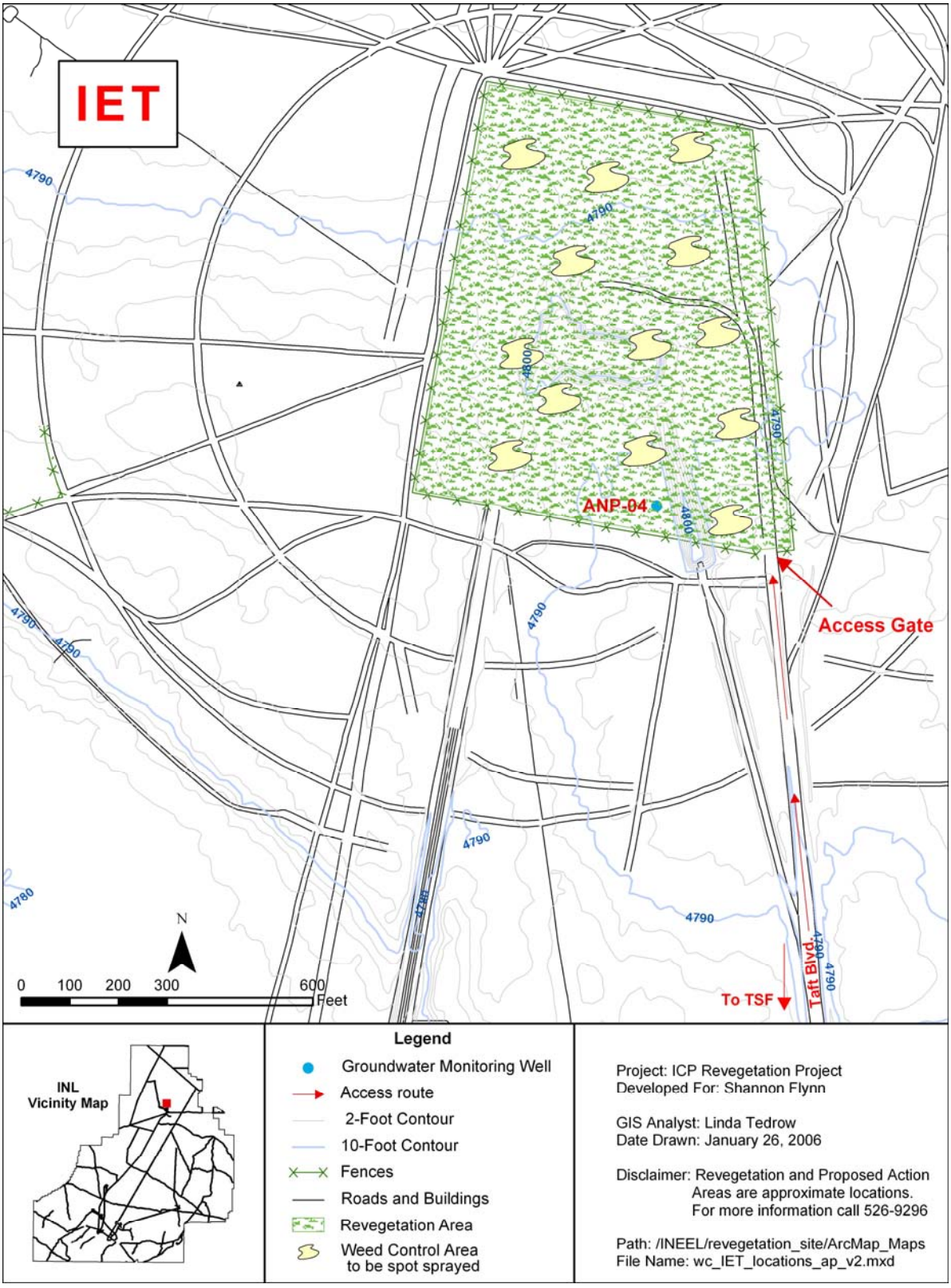

Figure C-5. Map of Initial Engine Test Facility demolition site.

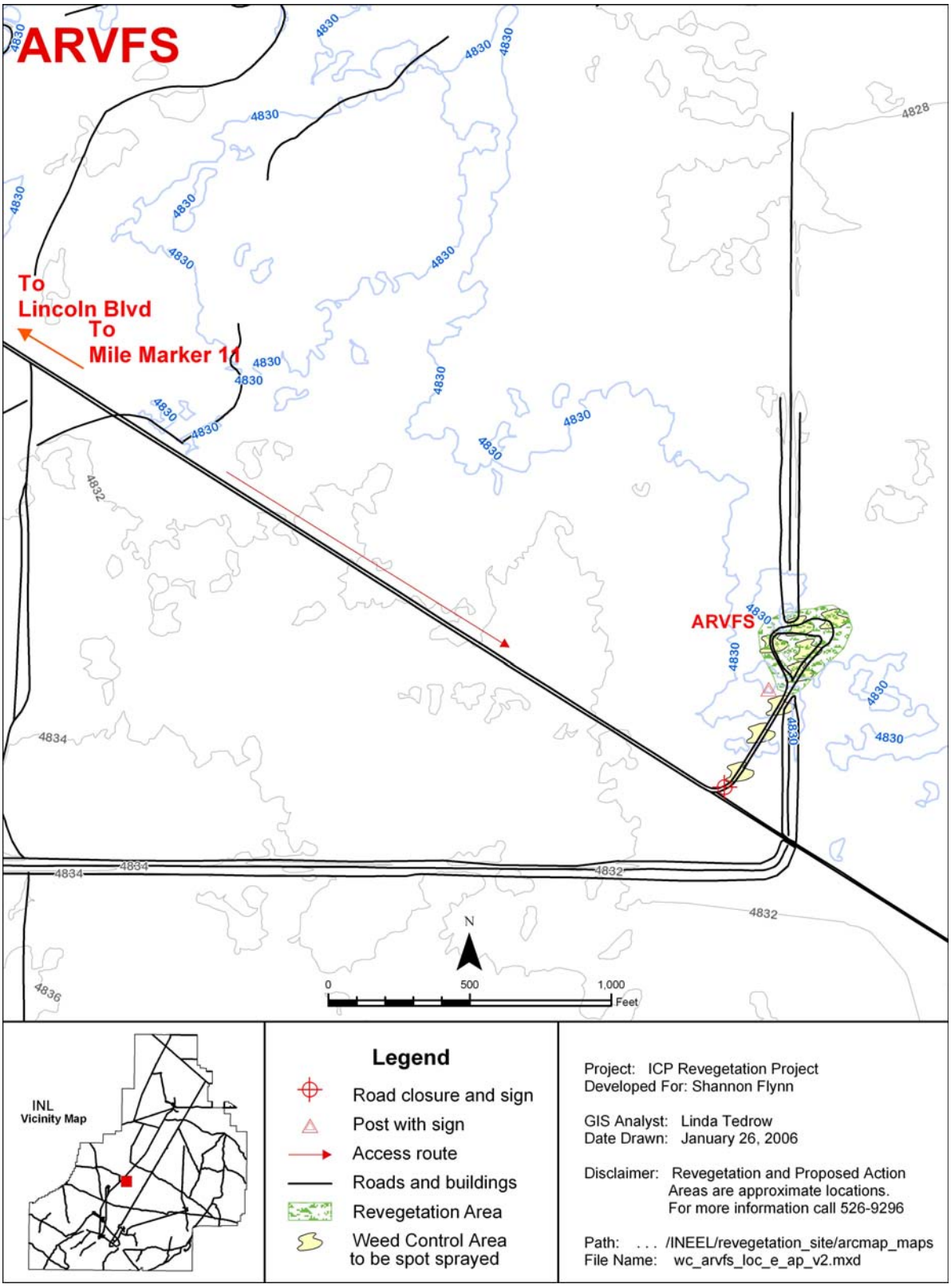

Figure C-6. Map of the Army Reentry Vehicle Facility site bunker demolition.

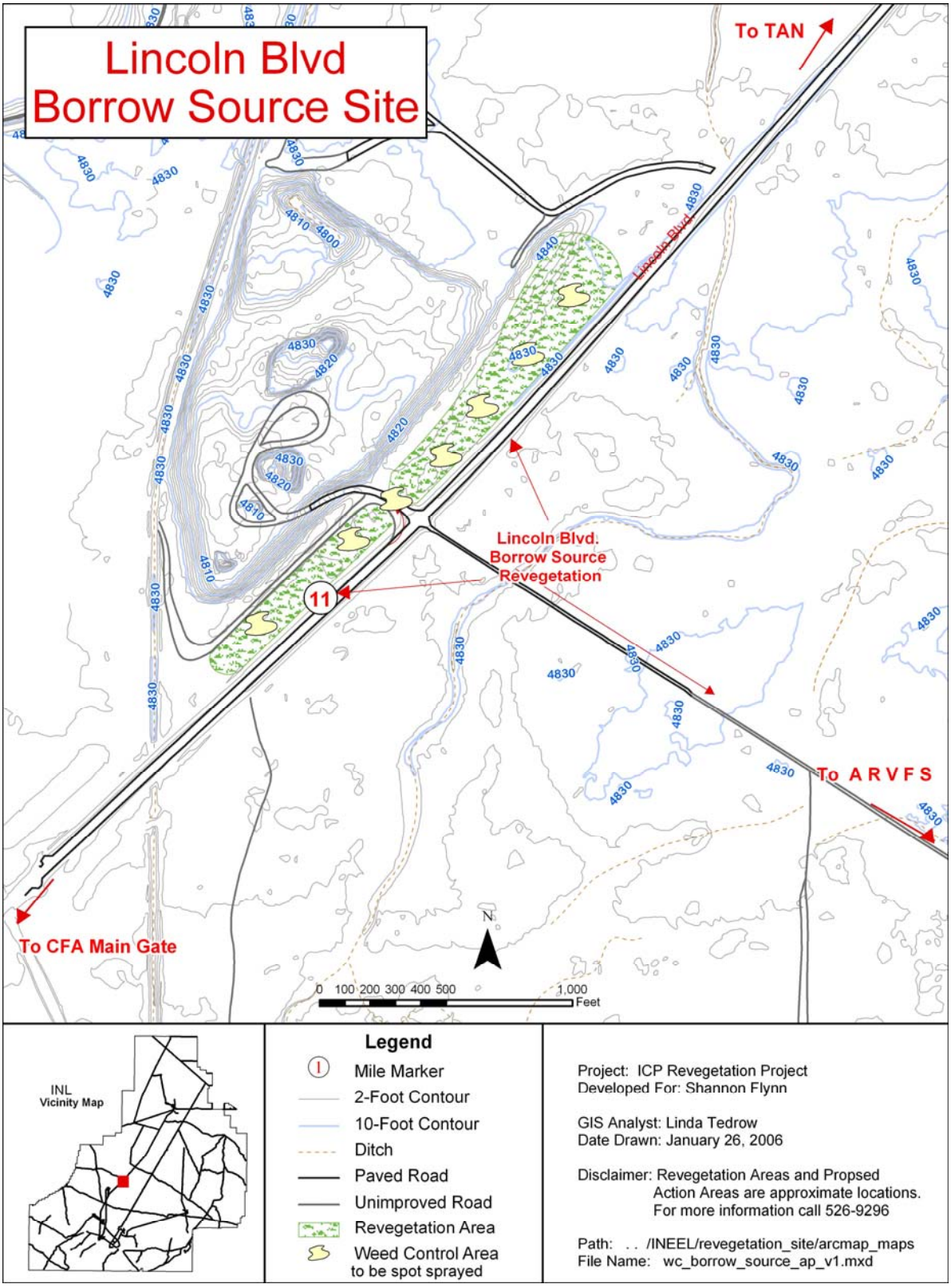

Figure C-7. Map of the Lincoln Boulevard Borrow Source site (for CFA-08).

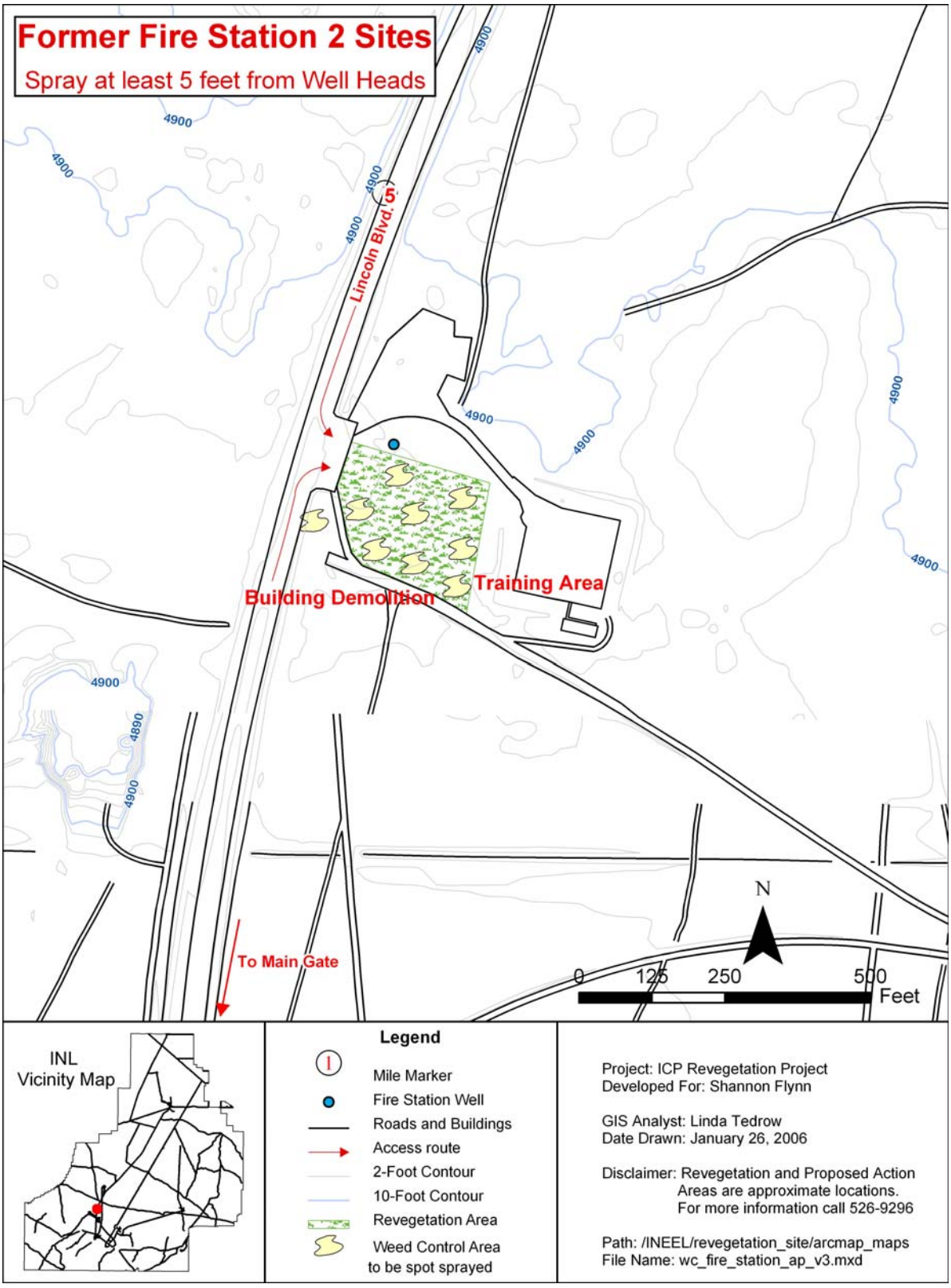

Figure C-8. Map of the Central Facilities Area Fire Station 2 training facilities demolition site.

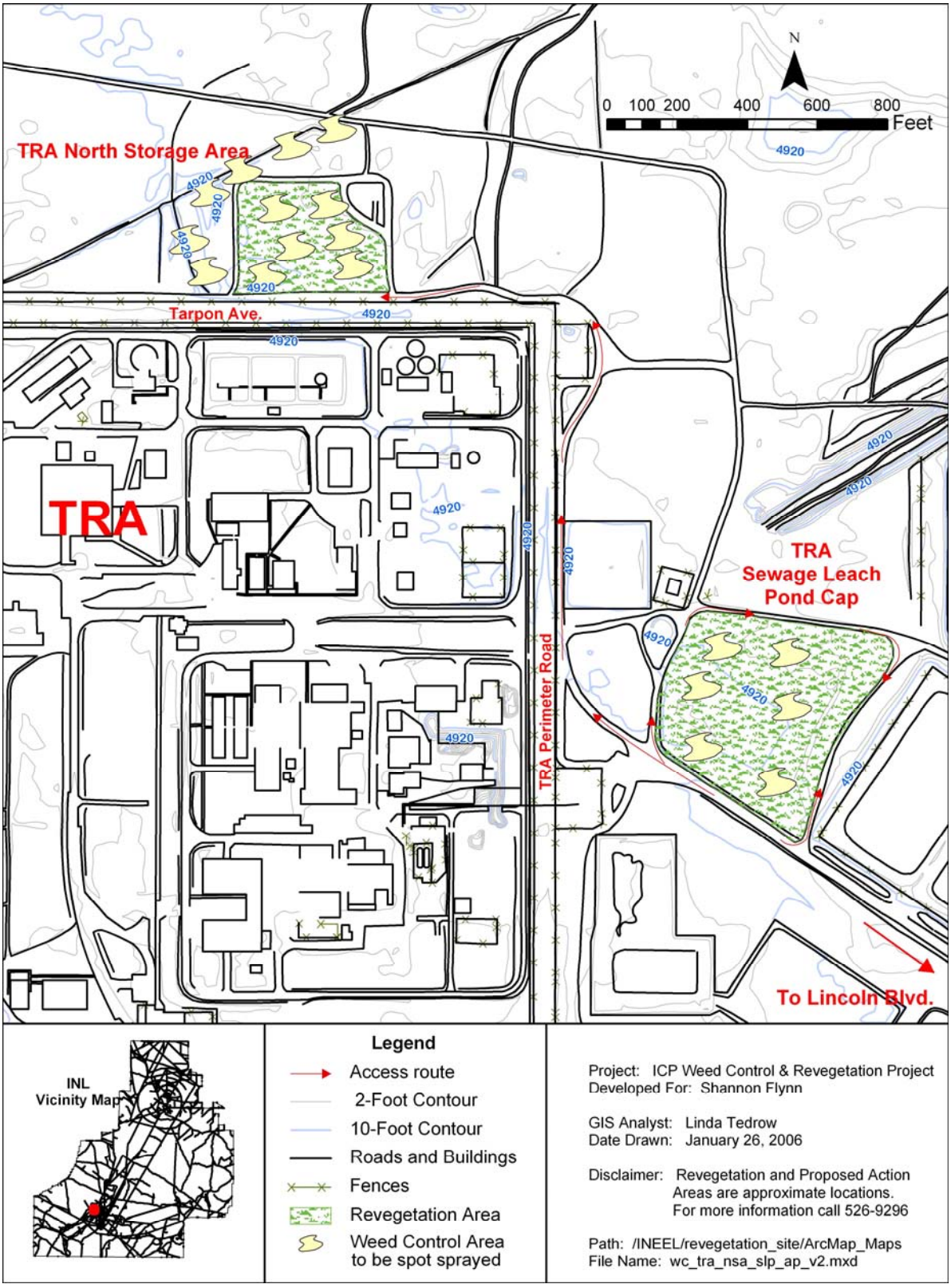

Figure C-9. Map of the Test Reactor Area sites: (a) sewage leach pond cap/Operable Unit 2-13 remedial action and (b) north storage area/Operable Unit 10-06 radiological soil.

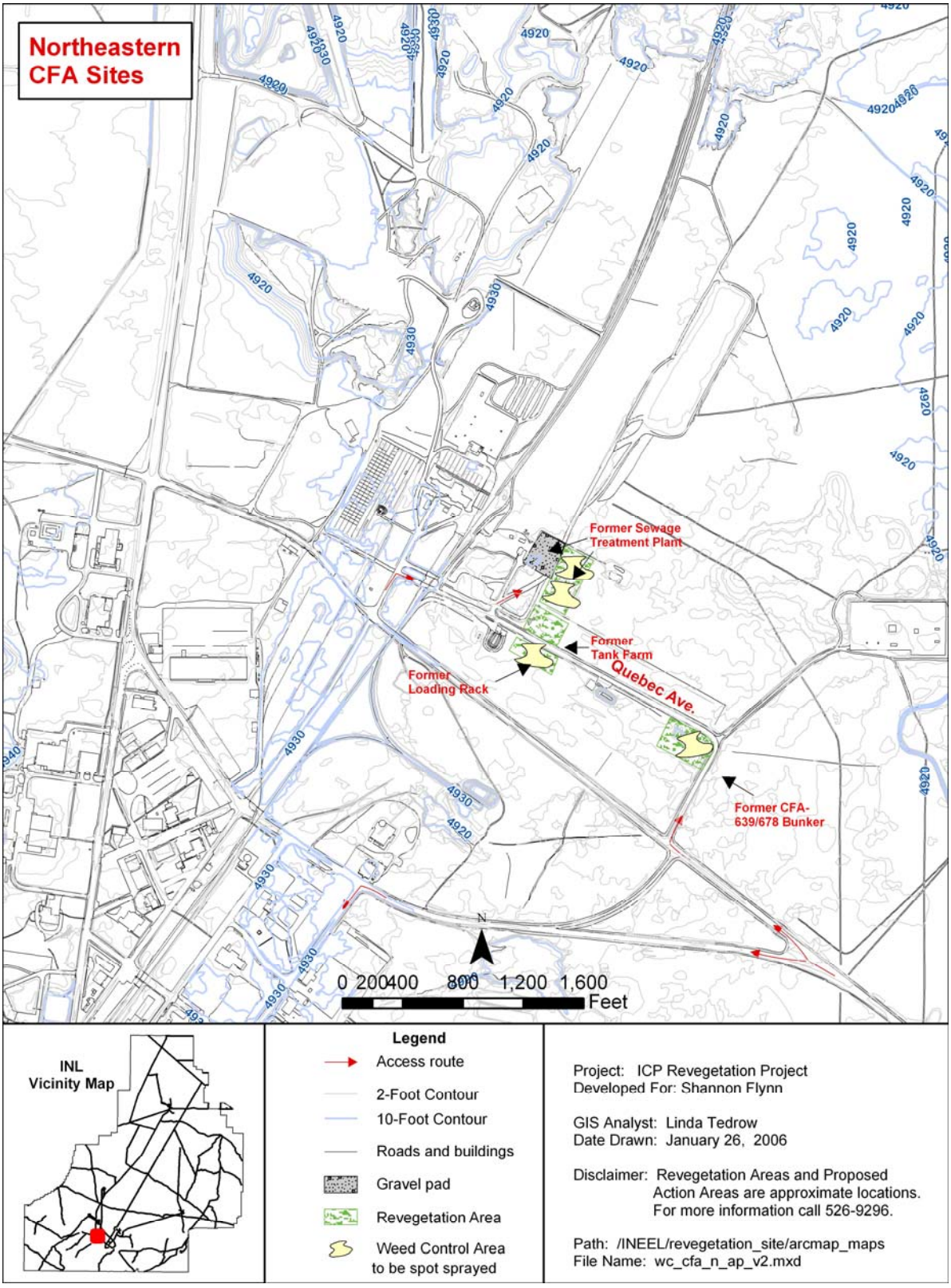

Figure C-10. Map of the northeastern Central Facilities Area sites: (a) CFA-691 sewage treatment plant area demolition site, (b) tank farm and loading rack/Waste Area Group 4 removal action site on Quebec Avenue, and (c) CFA-678/689 bunker buildings demolition site.

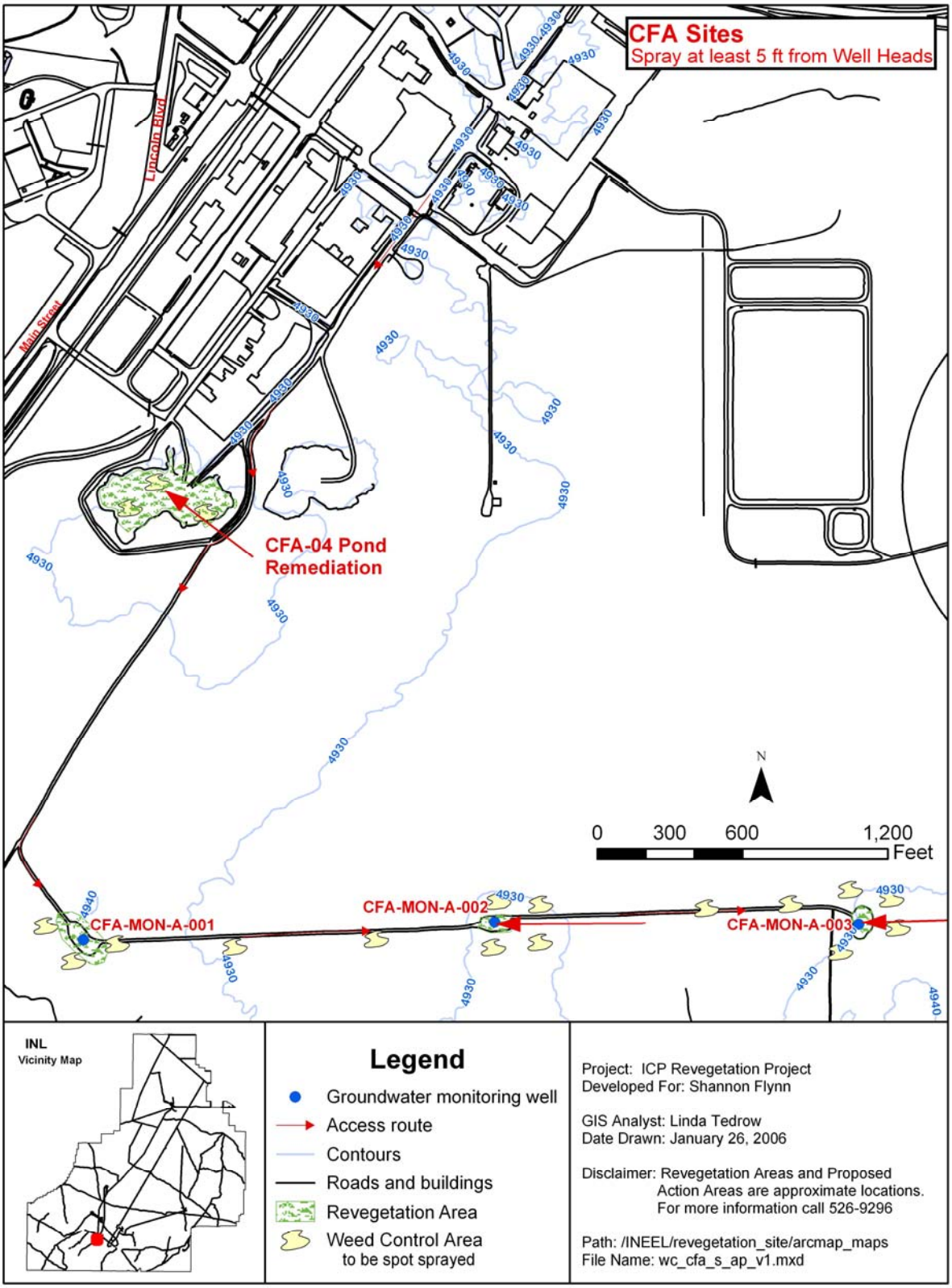

Figure C-11. Map of the southwestern Central Facilities Area sites: (a) Waste Area Group 4 CFA-04 pond remediation and (b) Central Facilities Area monitoring wells (CFA-MON-A-001, CFA-MON-A-002, and CFA-MON-A-003).

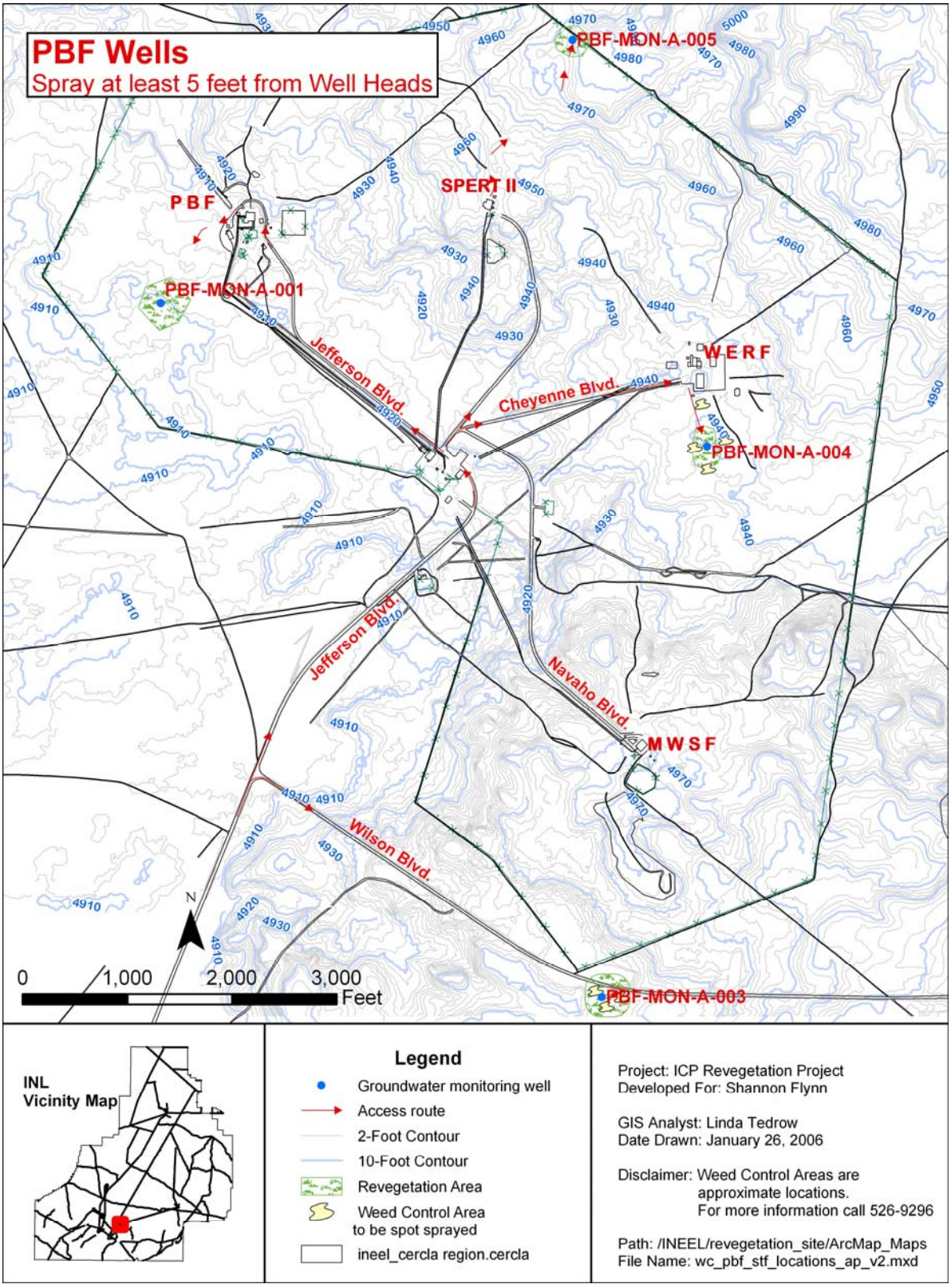

Figure C-12. Map of the Power Burst Facility well sites: PBF-MON-A-004 (inside of the fence and south of the Waste Experimental Reduction Facility) and PBF-MON-A-003 (outside of the fence on Wilson Boulevard).

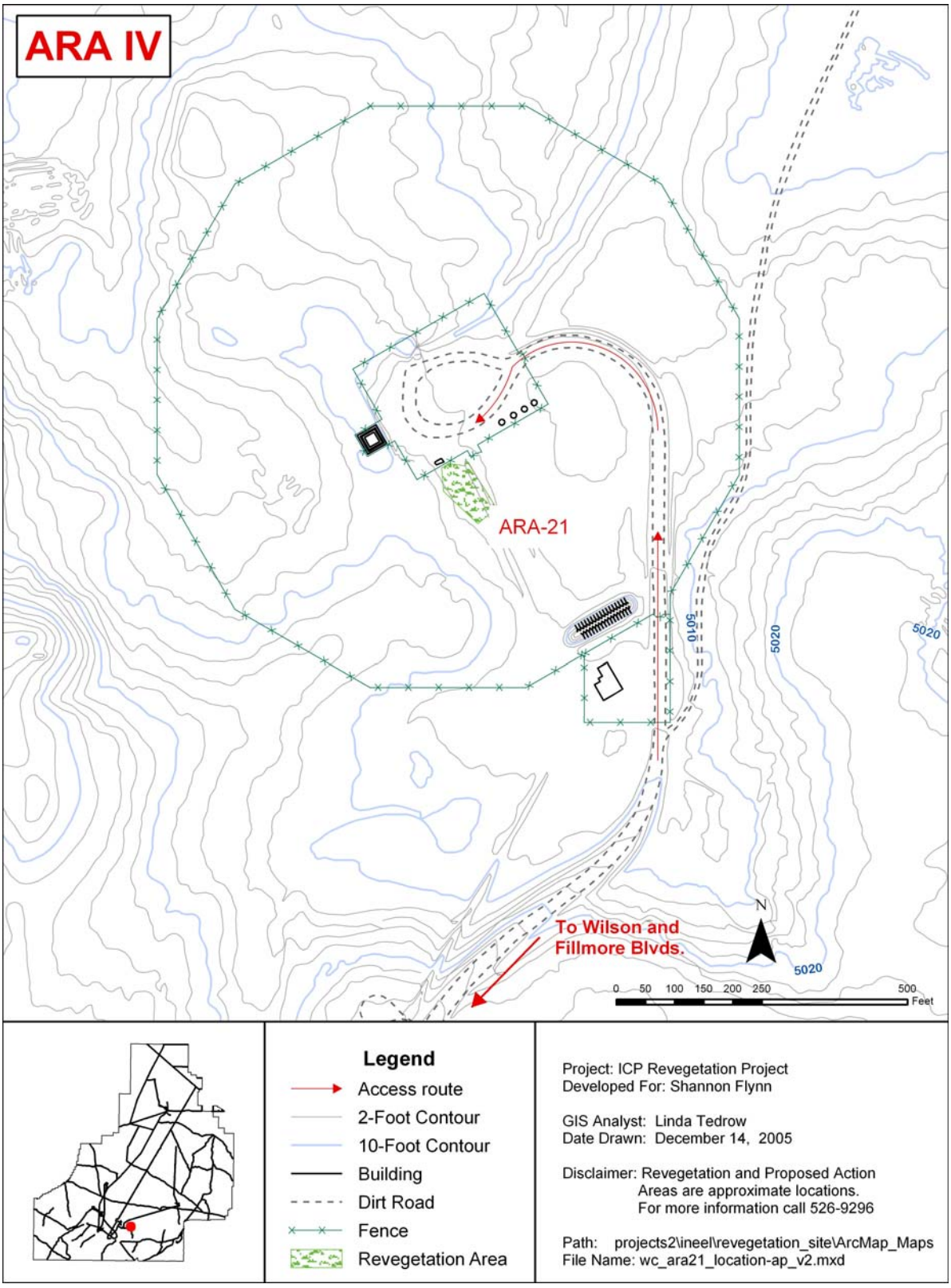

Figure C-13. Map of ARA-IV site: ARA-21/ARA-IV remediation site/seepage pit (outside of the facility fence).

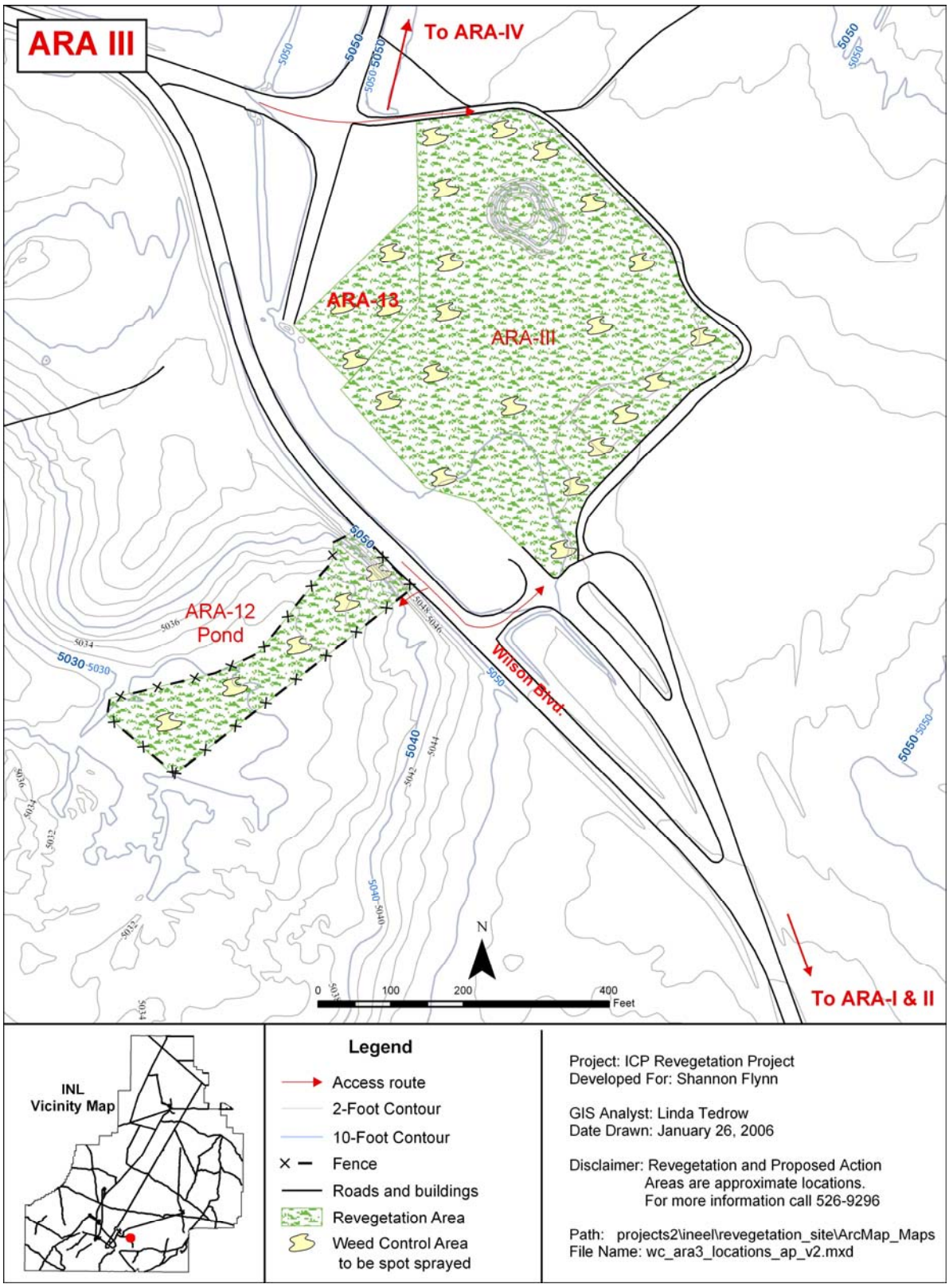

Figure C-14. Map of ARA-III sites: (a) ARA-12/ARA-III remedial action site and (b) ARA-13 remediation site/ARA-III septic tank (outside of the facility fence).

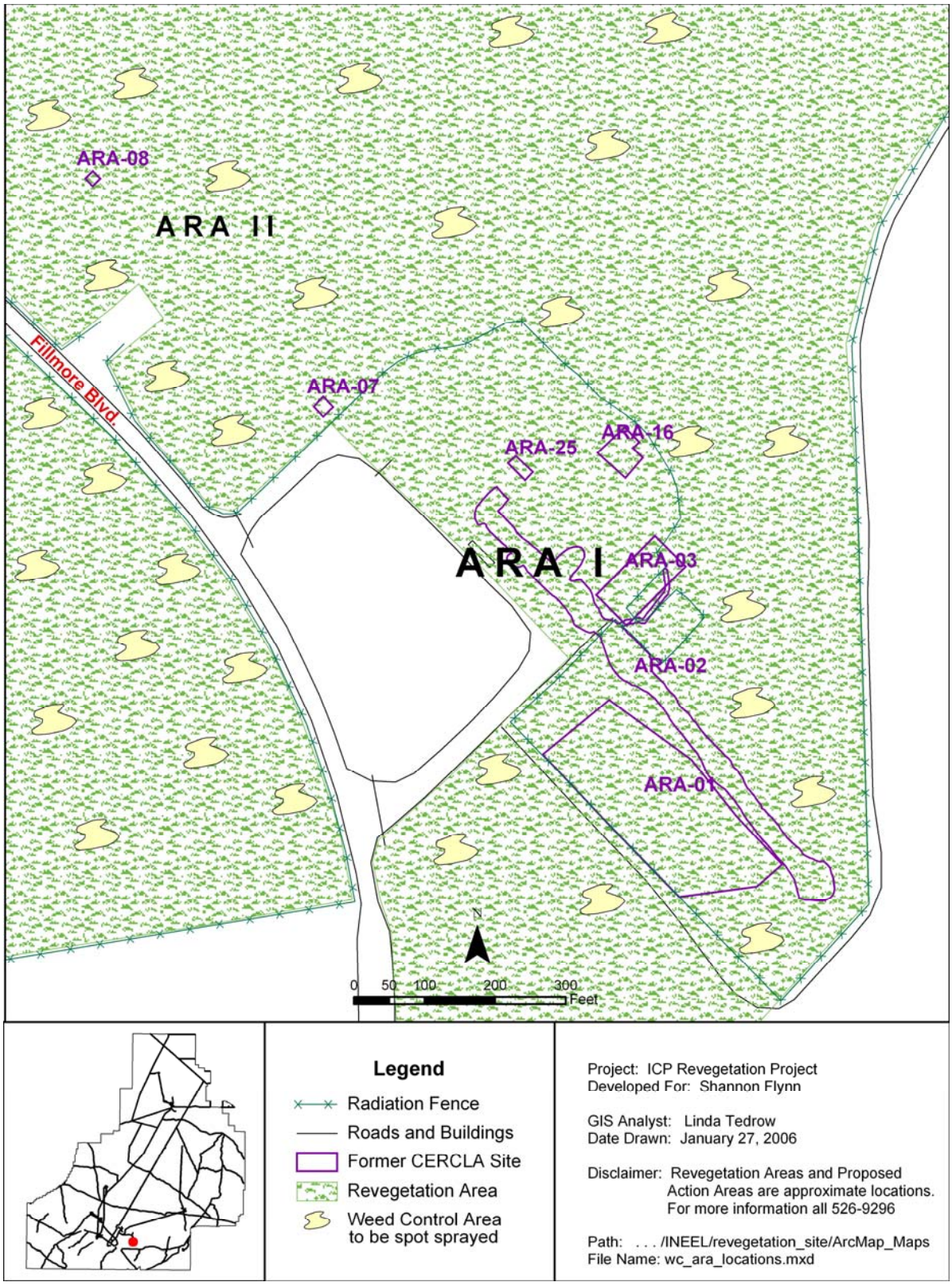

Figure C-15. Map of ARA-I and ARA-II sites: (a) ARA-08 remediation site/ARA-II west seepage, (b) ARA-07 remediation site/ARA-II south seepage, (c) ARA-16/ARA-25 (ARA-I) remediation site, and (d) ARA-02 remediation site/ARA-I sanitary waste leach field and seepage pit.

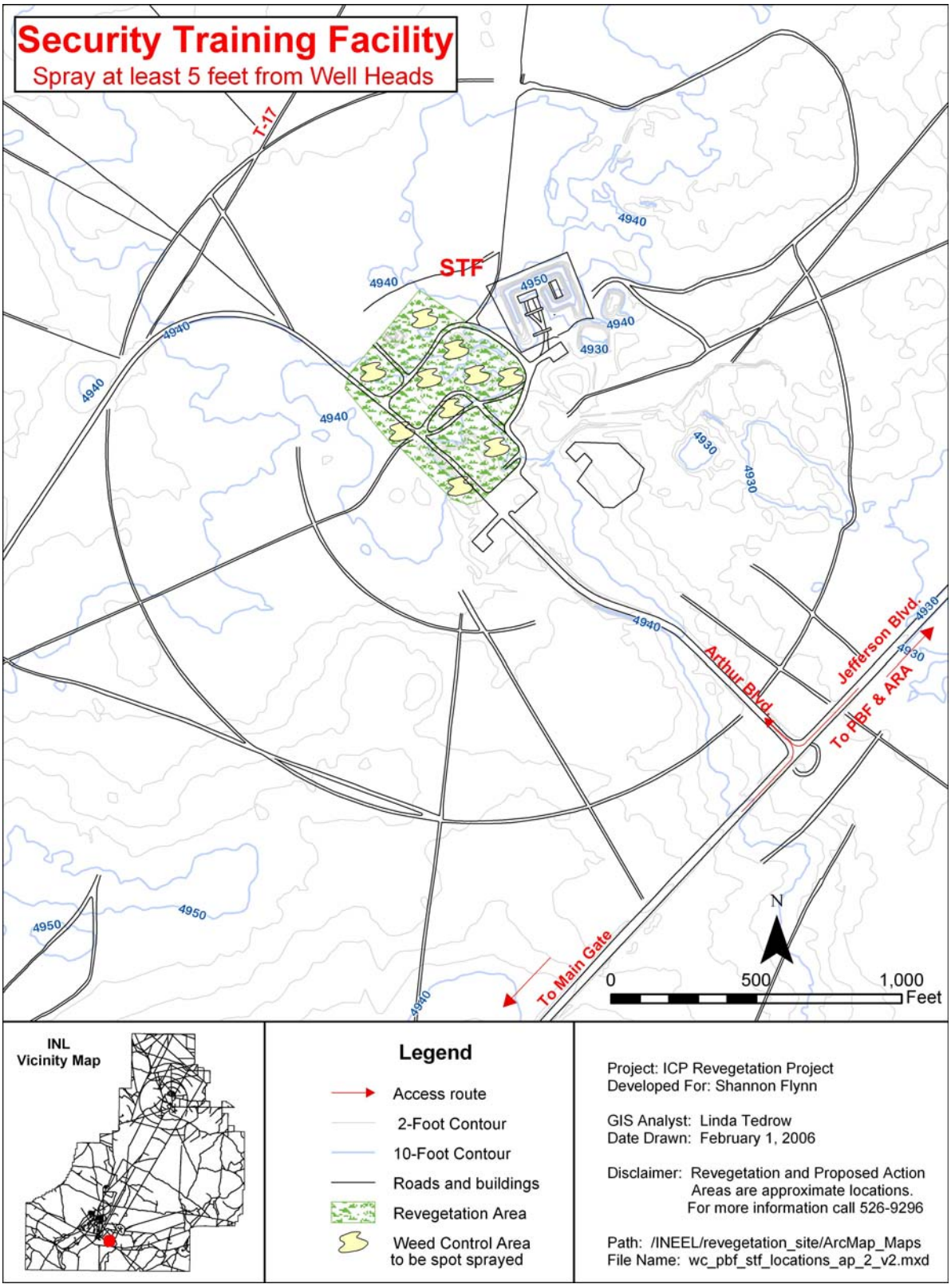

Figure C-16. Map of the Security Training Facility demolition site.

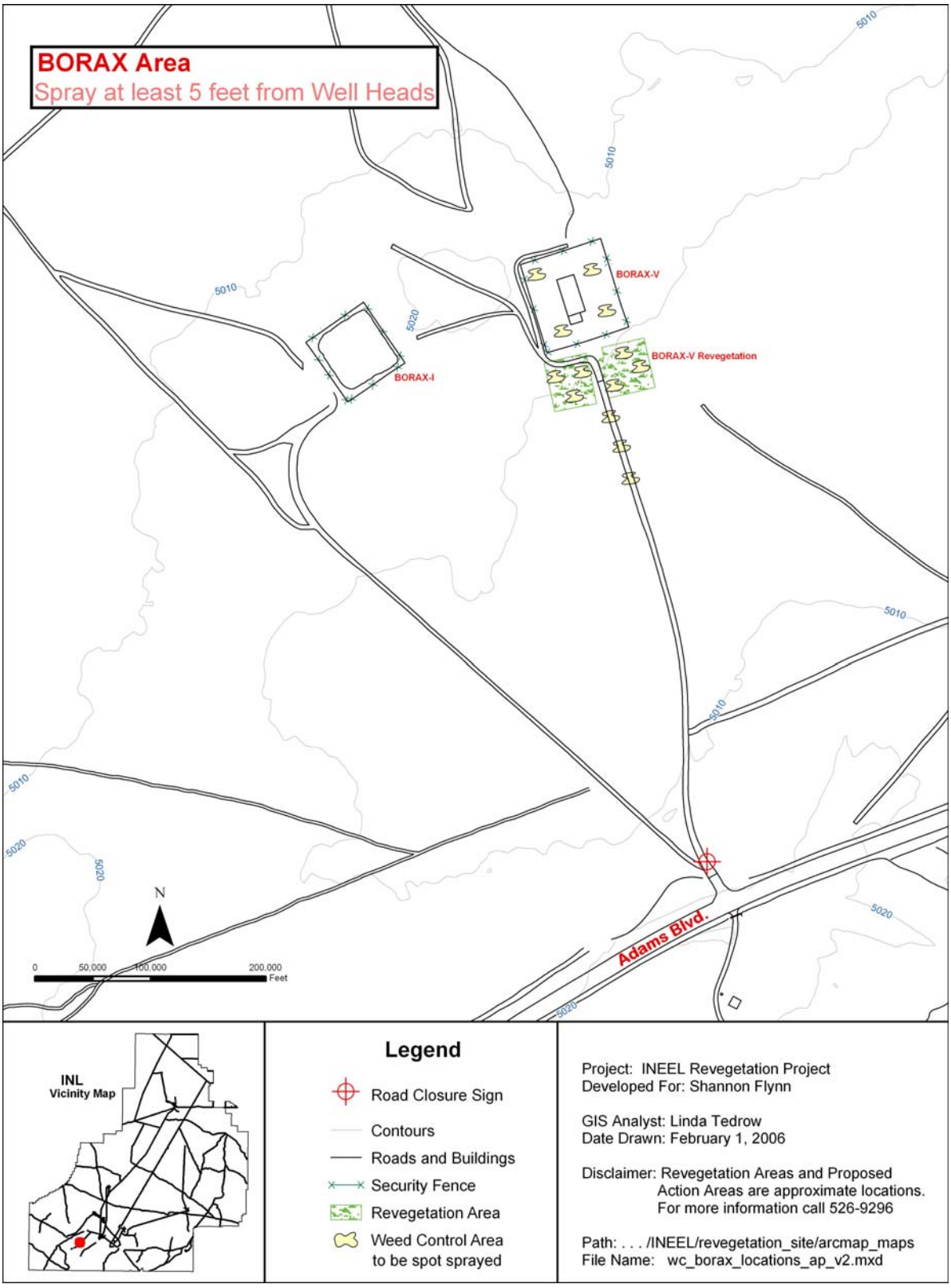

Figure C-17. Map of the Boiling Water Reactor Experiment sites: (a) BORAX-V area demolition (inside the facility fence) and (b) BORAX-V area revegetation (outside the facility fence).

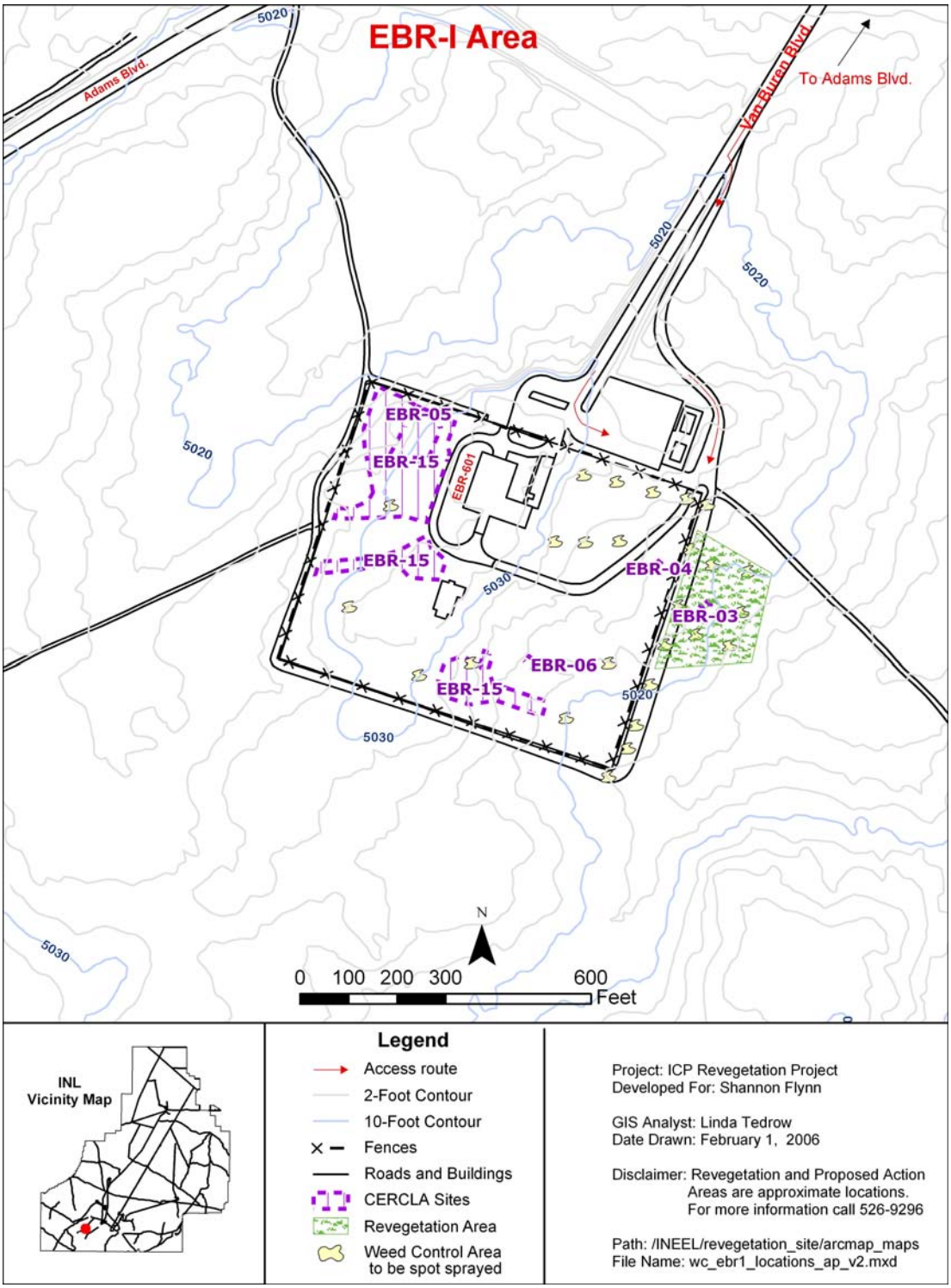

Figure C-18. Map of the EBR-I area sites: (a) EBR-I (EBR-15)/Operable Unit 10-06 radiological soil contamination (inside of the facility fence, south and west of EBR-I), (b) EBR-I/demolition of Zero Power Production Reactor (inside of the facility fence, east of EBR-I), (c) EBR-I former septic tank (EBR-04) area (inside of the facility fence, east of EBR-I to the eastern fence), (d) EBR-I drainfield (EBR-05) area (outside of the facility fence, east of EBR-I and EBR-04), and (e) EBR-I perimeter fence weeds (outside the facility fence, along the eastern side).

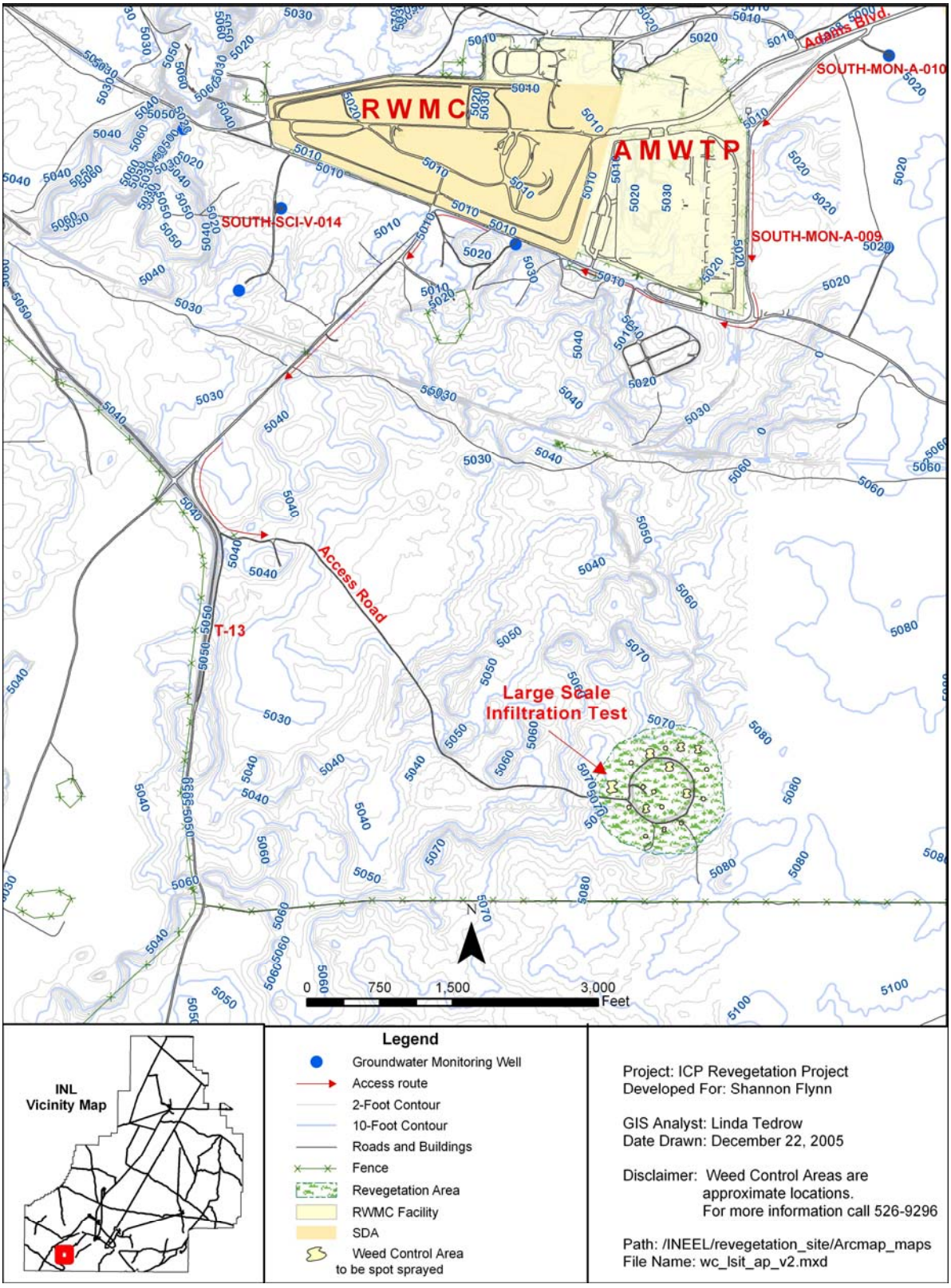

Figure C-19. Map of the Large-Scale Infiltration Test/infiltration basin (outside of the facility fence, south of the Radioactive Waste Management Complex).

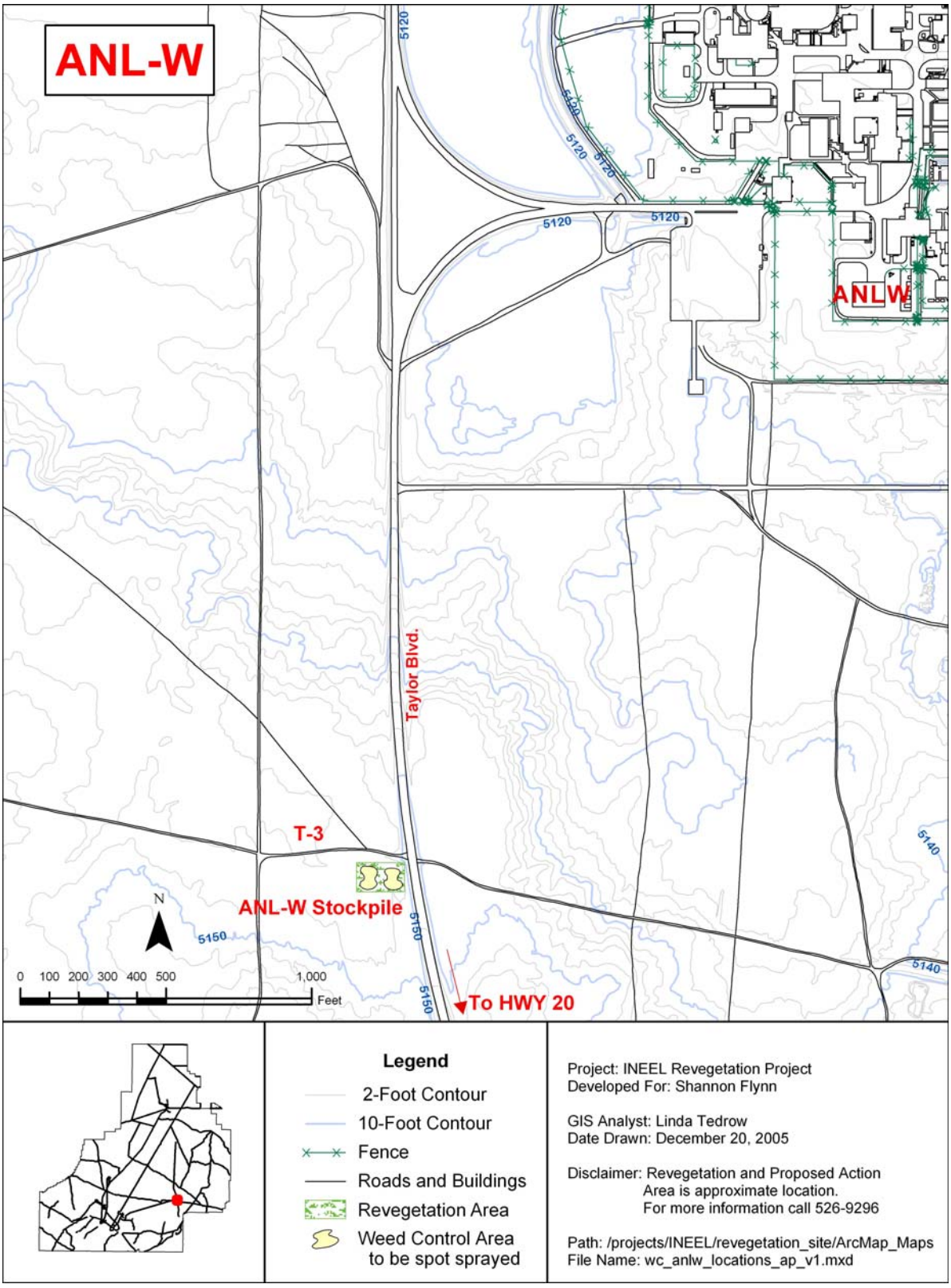

Figure C-20. Map of the Argonne National Laboratory-West stockpile/Operable Unit 10-06 radiological contamination.